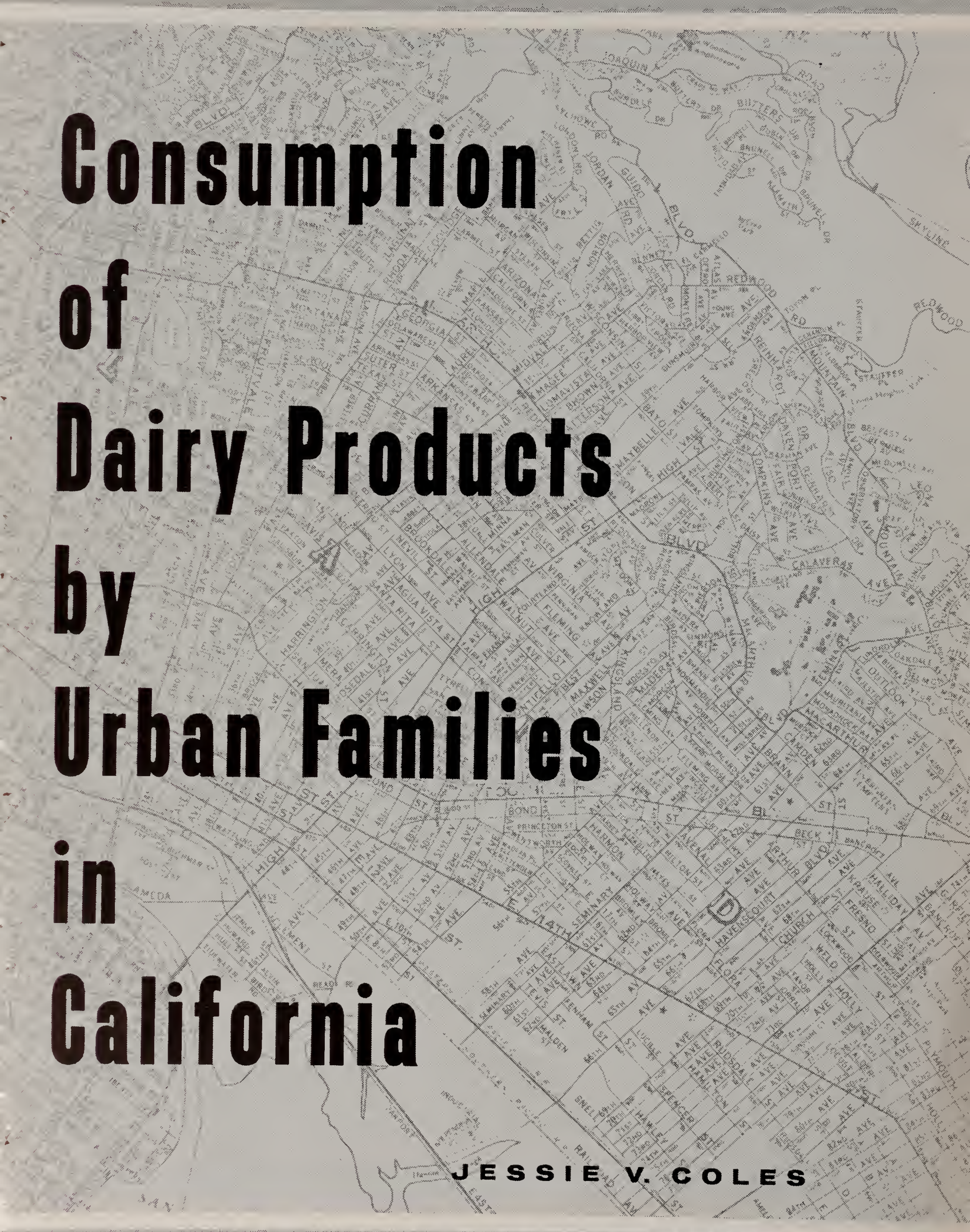
Division of Agricultural Sciences
UNIVERSITY OF CALIFORNIA



Consumption of Dairy Products by Urban Families in California

JESSIE V. COLES

CALIFORNIA AGRICULTURAL
EXPERIMENT STATION

BULLETIN 767

Digitized by the Internet Archive
in 2012 with funding from
University of California, Davis Libraries

http://www.archive.org/details/consumptionofdai0767cole

Dairy products are an important part of the diet of American families from two standpoints—that of the money spent for them, and that of the nutritional value they provide.

Although some data are available regarding the consumption of some dairy products in other parts of the country, adequate data are not available for any western area. The recent great increase in population and the somewhat different mode of living on the Pacific Coast present problems in consumption which may be quite different from those in other areas of the country.

Moreover, the dairy industry is a very important one in California and the West as judged by the value of the products, the capital invested, and the number of persons employed.

This study of the consumption of dairy products by urban families has many implications for consumers and producers of dairy products, for nutritionists and educators concerned with improving family diets and the use of western products, as well as for persons interested in consumption factors in general.

Some of the extremely detailed information gathered during the course of this study has been omitted from this bulletin because of the limited audience for such material. The information, in tabular form, is available, however, on microfilm for anyone having need for further details.

Directions for obtaining microfilms or enlarged prints of any or all of this supplementary material will be found on page 135.

THE AUTHOR:

Jessie V. Coles is Professor of Home Economics and Home Economist in the Experiment Station, Berkeley.

APRIL, 1959

TABLE OF CONTENTS

Definitions of Terms Used . . . 2
Characteristics of Households Studied . . . 5
Consumption of Dairy Products in Oakland and Los Angeles . . . 11
    Total Expense for Dairy Products . . . 11
    Total Quantities of Dairy Products Consumed . . . 14
    Major Dairy Products Consumed . . . 19
    All Fluid Milk . . . 21
    Fluid Milk Used as a Beverage . . . 27
    Half-and-Half . . . 32
    Cream . . . 34
    Evaporated Milk . . . 37
    Condensed Milk, Dry Milk, and Infant Formula . . . 39
    Cottage Cheese . . . 40
    American Cheddar Cheese . . . 41
    Other Cheese . . . 46
    Frozen Desserts . . . 46
    Butter . . . 48
    Nondairy Fats Competing with Butter . . . 51
    Where Families Purchased Dairy Products . . . 54
    Dairy Products in the Diet . . . 57
Seasonal Consumption of Dairy Products in Sacramento . . . 60
    Temperatures During Surveys . . . 60
    Total Expense for Dairy Products . . . 61
    Total Quantities of Dairy Products Consumed . . . 62
    Major Dairy Products Consumed . . . 63
    Uses of Whole and Nonfat Milk and Buttermilk . . . 65
    Use of Fluid Milk as a Beverage by Households . . . 66
    Where Family Members Drank Milk . . . 66
    Quantities of Fluid Milk Used as a Beverage by Family Members . . . 66
    Family Members Who Did Not Drink Milk . . . 68
    Half-and-Half . . . 68
    Cream . . . 70
    Evaporated Milk . . . 71
    Condensed Milk, Dry Milk, and Infant Formula . . . 71
    Cheese . . . 73
    Frozen Desserts . . . 75
    Butter . . . 75
    Where Families Purchased Dairy Products . . . 77
    Relation of Visits to Grocery Stores to Deliveries by Dairies . . . 79
    Dairy Products in the Diet . . . 79
Summary . . . 81
Acknowledgments . . . 83
Appendix A: Tables 1A–31A . . . 85
Appendix B: List of Microfilmed Tables . . . 135

CONSUMPTION of DAIRY PRODUCTS by URBAN FAMILIES in CALIFORNIA[1]

JESSIE V. COLES

THE GENERAL OBJECTIVE of the study was to determine the quantities of the different dairy products used by different groups of consumers, the ways in which the products were used in the home, and the factors influencing those uses. The ultimate purpose was to promote the best possible utilization of the products from the standpoint of families, individual consumers, and producers.

The specific objectives were to determine: (1) the quantities, in terms of appropriate units, of the different dairy products which were used by families; (2) the ways in which the different products were used in the home; (3) how much money was spent for the different products and the relation of those expenditures to the total amount spent for food by families; (4) the factors, such as size and composition of family, income, racial background, season of the year, facilities for care of the products, and education of the household buyer, which influence the consumption of dairy products and the ways in which they are used in the home.

The study was made in Oakland, Los Angeles, and Sacramento. In 1950, 62.4 per cent of California's total population lived in the Los Angeles and San Francisco-Oakland areas.

Sacramento, with a population of 137,572 in 1950, has a much more marked variation in temperature during the year than do the other cities, and was therefore chosen for a study of the effect of season on the consumption of dairy products.

The Oakland study was made in February and March, 1952, and the Los Angeles study in April and May of that year. Since the purpose of the Sacramento study was to discover whether or not seasonal factors affect the consumption of dairy products, it was necessary to interview families in two seasons. The first study was made during August and September, 1952, and the second in January and February, 1953. Some of the families interviewed in the summer were not available in the winter, either because they could not be located or because, in the case of a few, they refused to coöperate in the second survey. When this occurred, other families from the original sample were substituted for the winter survey.

The data were collected by trained interviewers who visited dwelling places selected at random in such a manner as to be representative of each area. The sampling techniques for Oakland and

---

[1] This study was financed jointly by the California State Department of Agriculture (Dairy Industry Advisory Board), U.S. Department of Agriculture under the Research and Marketing Act, and the University of California Agricultural Experiment Station.

Sacramento were designed by the Department of Agricultural Economics, University of California, Berkeley. The Department provided maps enumerating the blocks to be included in the survey, and specific instructions for selecting the individual dwellings within each block. The representative sample in the Los Angeles area was a subsample drawn from that used by the United States Bureau of Labor Statistics in its 1950 study of family income and consumption.

In Oakland detailed information concerning consumption was secured from 424 families with 1,268 members, and in Los Angeles, from 513 families with 1,593 members, including children under one year. In Sacramento, 305 families with 1,040 members were interviewed in the summer. In the winter, 262 of these families were interviewed a second time. In the summer these families had 897 members and in the winter, 888 members. Since information was not secured in the winter from 43 of the families interviewed in the summer, another group of 43 was substituted. The 305 families interviewed in the winter had 1,044 members.

Information was secured by personal interviews in the home. The homemaker or the person responsible for food purchases and preparation was interviewed.

Data were recorded on two schedules. First, a record card was completed for each family contacted. Information on

DEFINITIONS OF

Adolescents. Persons 13 years through 20 years.

Adults. In households classified as "with or without children" and as "two-adult households," persons 16 years or over. In data pertaining to the use of milk as a beverage by family members, and in those pertaining to the quantity of dairy products in milk equivalent consumed in relation to quantities suggested by nutritionists, adults were those persons 21 years or over.

Boarders. Persons related or unrelated to the head of household (except unmarried sons or daughters living at home) who paid a stipulated amount for board and room.

Children. In households classified as "with or without children" and as "two-adult households," persons under 16 years. In data pertaining to use of milk as a beverage by family members and in those pertaining to the quantity of dairy products in milk equivalent consumed in relation to quantities suggested by nutritionists, children were those persons under 13 years.

Consumption of dairy products. Quantities actually consumed by the household during the seven-day period of the studies.

Cream (all). Includes table cream, whipping and whipped cream, sour cream, and all-purpose cream.

Education of homemaker. The classification "first through eighth grade" also includes all homemakers who went partially through the ninth; the grouping "some high school" includes those who completed a business course after finishing the eighth grade as well as those who attended high school; "graduated from high school" includes graduates from vocational high schools as well as those who, after graduating from high school, took up to a year's training in business school; "some college" refers to a minimum of one college semester or nurse's training. It also includes those who completed two years of business college.

Eligibility requirements. The following characteristics required of a household in order to be included in the study: The household must consist of at least two persons who had 10 meals each at home in the seven days covered by the study. These two persons must: (1) constitute a family unit, i.e., a husband and wife or a parent and unmarried child (adolescent or adult) this card determined the family's eligibility for further study. This eligibility was based on the family unit, defined as two or more persons each of whom regularly slept at home and had eaten at least 10 meals there during the period covered by the survey—the seven days immediately preceding the interview. These persons either were related or drew from a common fund for specified combinations of their major expense items.

If the homemaker in an eligible family was willing to coöperate, the second, detailed schedule was completed. This recorded the quantity, price, place of purchase, and use of 30 dairy products and four nondairy fats. Information secured included age and sex of each member of the family, family income, occupation of the major earner, color and education of the homemaker.

The number of meals eaten away from home by members of the family and the number of meals eaten in the home by guests, household help, and others during the seven-day period were recorded.

The kind of information gathered in the three cities was essentially the same, but the Oakland and Los Angeles schedule was simplified in several ways for the study in Sacramento. For example, exact information concerning income was requested in the Oakland and Los Angeles surveys, but Sacramento families were asked to indicate only the range in which net family income fell.

TERMS USED

or other related person, or (2) share the major portion of their expenses for (a) food, (b) housing (rent and/or utilities) and/or automobile, and (c) clothing or medical care, or (d) have pooled their savings. The household could not contain more than four boarders.

Family members. For the purposes of this study, family membership was accorded to the following persons: (1) the head of the household and all his or her dependents who were either living in the household or were only temporarily away (at school, etc.) (Persons in the military forces were excluded, unless stationed at home.) (2) All unmarried sons and daughters, whether dependent or independent, who were living in the household. (3) Other persons, related or unrelated to the head, who were living in the household and sharing expenses for: (a) food, (b) housing or automobile, and (c) clothing or medical care, or (d) were pooling savings.

Food expense

Per household—Expenditures for all food (1) purchased in the seven days covered by the study, for consumption at home or in carried lunches, and (2) estimated money cost to household of home-frozen, home-canned, and garden food used during the seven days preceding the interview. The figure excludes expenditures for (1) liquor, (2) food bought in 50-pound or larger lots, by the case, or for preservation by canning or freezing *not* used in the seven days preceding the interview.

Per person—Total expense for food for the household during the week divided by the number of 21-meal-equivalent persons in the household.

Frozen desserts. Includes ice cream, ice milk, sherbet, and other similar desserts in which one or more dairy products were used.

Household. For the purposes of this study, a household consists of all persons—family members, guests, household help, and boarders—eating 10 or more meals each in the house during the seven days covered by the study.

Household help. Persons employed by the family, who had one or more meals in the household in the seven days covered by the study.

Household size. Based on total number of 21-meal-equivalent persons. The number of such persons was obtained by dividing by 21 the total number of individual meals served in the household in the seven days covered by the study.

Income

Family—The sum of the total incomes (net after federal income taxes) during 1950 of all the family members who were living in the household in 1950. In instances in which a family was formed during or since 1950, or the principal earner died during or since 1950, no income figures were requested. Included in the income were total earnings; net receipts from business, investments, property, roomers, and boarders; income from pensions, retirement, and compensations; insurance, annuities, trust funds; military allotments or benefits; unemployment insurance and social welfare payments.

Per person or per capita—Income per family member, net after expense for boarders.

Meals away from home. All meals, purchased or free, eaten by family members away from home. Does not include lunches carried from home. If, in any one day, an individual ate only two meals, of which the larger was eaten away from home, that individual was considered as having two meals away.

Milk

Fluid—Includes all whole fluid milks and, in addition, nonfat, buttermilk, chocolate drink, yogurt (both liquid and solid), and goat milk.

Whole fluid—Includes plain, homogenized, Vitamin D, multiple vitamin, concentrated, and extra-fat milks.

Milk equivalent—Refers to the quantity of fluid milk to which the various dairy products, excluding butter, are equivalent in protein and minerals. Also discussed on pages 14–15 are milk equivalents based on milk fat. The factors used in converting pounds of the different dairy products into their approximate equivalents in fluid milk were as follows:

	MILK EQUIVALENT BASED ON:	
	Protein and minerals	Milk fat
Whole milk (3.7% milk fat)	1.00	1.00
Extra fat milk	1.00	1.10
Nonfat milk	1.00	...
Buttermilk	1.00	...
Chocolate drink	1.00	0.32
Yogurt	1.00	0.95
Half-and-half (12% milk fat)	0.40*	1.70
Cream (30% milk fat)	0.33	3.82
Evaporated milk	0.93	0.98
Condensed milk	1.13	1.03*
Dry milk—whole	3.53	4.02
Dry milk—nonfat	4.56	0.15
Cottage cheese	1.40*	0.51*
American Cheddar cheese	3.21	4.82
Other hard cheese	3.21	4.82
Cream cheese, cream cheese spreads	0.88	4.15*
Ice cream	0.56	1.52*
Ice milk	0.54*	0.51*
Sherbet	0.14*	0.25*
Butter	...	10.62

SOURCES: Protein and minerals: For unstarred factors, see "Nutritive Value of Family Diets, Four Cities, Winter, 1947," U.S. Department of Agriculture, Agricultural Research Administration, Washington, D.C., mimeographed.

---

* Starred factors were calculated from data secured from California processing plants. Factor for cottage cheese was based on "creamed" cottage cheese. Milk fat: Starred factors were based on legal standards and on commonly reported yields from industry sources. All others were derived from information in James B. Hassler, "Pricing Efficiency in the Manufactured Dairy Products Industry," *Hilgardia* 22 (8), 1953, Appendix A.

Person. Refers to 21-meal-equivalent person. See "Household Size."

Principal earner. The head of the household is considered the principal earner, regardless of the amount earned, if he worked full-time. If the head did not work full-time, and some other member earned the major part of the family income, that member was the principal earner.

Sandwich ingredients. "Used in sandwiches" includes all cheese, butter, or oleomargarine used in sandwiches made and/or eaten at the table or prepared in the kitchen and carried in lunches or to picnics.

Used at the table. Concept covers incidental use of dairy products at the table, e.g., milk or cream poured into tea or coffee, or over cereal, fruit, or dessert by the individual; cheese, cottage cheese, butter, or oleomargarine eaten alone, spread on bread or crackers, used by the individual to season vegetables, etc.

CHARACTERISTICS OF HOUSEHOLDS STUDIED

Size

The average (mean) number of persons in the families studied was approximately 3 in Oakland and Los Angeles and 3.4 in Sacramento.

	Oak.	*L.A.*	*Sac.*
Av. no. family members ..	2.99	3.10	3.37
Av. no. 21-m-e persons	2.93	2.98	3.38

Since the study was concerned with amounts spent for dairy products and quantities consumed by families and by individuals, it was necessary to relate these factors to the number of meals actually eaten in the home. For this reason, reference to size of families studied is in terms of 21-meal-equivalent persons rather than of family members. A 21-meal-equivalent-person refers to 21 meals eaten in the home during one week. To determine the number of 21-meal-equivilent persons in a family, the total number of meals eaten in the home by members of the family, guests, household help, and others was divided by 21.

The average number of family members, irrespective of the number of meals eaten at home, was approximately the same as the average number of 21-meal-equivalent persons in each of the areas studied. It therefore appears that the meals eaten away from home by family members were about offset by the meals eaten in the home by guests and others.

Although the average number of 21-meal-equivalent persons was approximately 3, only 25 to 29 per cent of the families had this number of members. From 30 to 40 per cent had only 2 persons, and 18 to 23 per cent had 4 persons. The distribution of families according to size was very much the same in Oakland and Los Angeles. Sacramento had a lower proportion of the smaller families and a higher proportion of the larger families. (See table 1A. All "A" tables appear in Appendix A, page 85.)

NO. 21-M-E PERSONS	*Oak.* *per cent*	*L.A.* *per cent*	*Sac.* *per cent*
2 persons (1.46–2.45) ...	39.9	37.6	30.2
3 persons (2.46–3.45) ...	25.2	29.0	27.1
4 persons (3.46–4.45) ...	17.7	18.4	22.5
All other*	17.2	15.0	20.2
Total	100.0	100.0	100.0

---

* 4.9 per cent of families in Oakland and 2.9 per cent in Los Angeles had fewer than 1.46 21-meal-equivalent persons, but more than 0.95, the minimum required for eligibility. The remainder in this group had more than 5 persons.

Adults and Children

In Los Angeles, 56 per cent of the families had children under 16 years old; in Sacramento, 54 per cent; and in Oakland, 47 per cent. Families with 2 adults, that is, persons 16 years or over, constituted 71 per cent of the total in Oakland, 75 per cent in Los Angeles, and 70 per cent in Sacramento. Two-adult families with no children under 16 years accounted for 38 per cent of all families studied in Oakland, 33 per cent in Los Angeles, and 31 per cent in Sacramento.

NO. OF CHILDREN UNDER 16 YRS.	ALL TWO-ADULT HOUSEHOLDS *Oak.* *per cent*	*L.A.* *per cent*	*Sac.* *per cent*
None	52.8	44.5	43.9
One	22.5	25.0	18.4
Two	15.8	21.6	20.7
Three	7.3	7.1	5.7
Four or more	1.6	1.8	11.3
Total	100.0	100.0	100.0

Table 1. Households in Oakland and Los Angeles Classified by Annual Family Income

Annual family income	Households				Average no. 21-meal-equivalent persons		Average weekly food expense*			
							Per household		Per person	
	Oak.	L. A.	Oak.	L. A.	Oak.	L. A.	Oak.	L. A.	Oak.	L. A.
	no.	no.	per cent	per cent						
All households	424	513	100.0	100.0	2.93	2.98	$21.88	$22.15	$7.50	$7.44
Less than $2,000	37	42	8.7	8.0	2.50	2.25	16.05	15.30	6.39	6.77
$2,000–2,999	66	62	15.6	12.1	2.86	2.76	20.37	16.98	7.12	6.16
$3,000–3,999	105	119	24.8	23.2	3.23	3.23	21.17	21.73	6.56	6.73
$4,000–5,999	115	157	27.1	30.6	2.95	3.08	23.04	24.25	7.80	7.89
$6,000 and over	60	82	14.1	16.0	2.74	3.01	25.42	26.45	9.19	8.80
No report	41	51	9.7	9.9	2.85	2.90	23.32	21.51	8.75	7.45
Median income†	$3,788	$3,970								
Mean income†	4,203	4,333								
Average 21-meal-equivalent persons†	2.95	2.99								

* For 414 families in Oakland and 504 families in Los Angeles who reported weekly food expense.
† Averages based on 366 families in Oakland and 375 in Los Angeles who reported exact money incomes.

Table 2. Households in Oakland and Los Angeles Classified by Annual Family Income per Person*

Annual family income per person	Households				Av. no. 21-m-e. persons	
	Oak.	L. A.	Oak.	L. A.	Oak.	L. A.
	no.	no.	per cent	per cent		
All households	424	513	100.0	100.0	2.93	2.98
Less than $500	20	18	4.7	3.5	4.07	3.10
$500–999	98	103	23.1	19.9	3.73	3.72
$1,000–1,499	90	112	21.2	21.8	3.01	3.14
$1,500–1,999	67	71	15.8	13.9	2.43	2.55
$2,000–2,999	63	52	14.9	10.1	2.28	2.18
$3,000 and over	28	20	6.6	3.9	2.05	1.92
No report	58	137	13.7	26.9	2.74	2.95
Median income	$1,312	$1,260	....	....	....	....
Mean income	1,558	1,478	....	....	....	....
Av. no. 21-meal-equivalent persons	2.95	2.99	....	....	....	....

* Annual family income per person is total net money income of the family divided by the total number of 21-meal-equivalent persons in the family. All data are based on 366 families in Oakland and 375 in Los Angeles who reported exact money incomes.

Age and Sex of Family Members

The mean age of all the family members, including children under 1 year, in each of the groups of families surveyed ranged from 31 to 33 years. From 31 to 39 per cent were under 21 years. Infants under 1 year constituted about 2 per cent of each group. The groups in which the members were between 30 and 39 years (17 to 20 per cent) were the largest among the age groups. The next largest groups were composed of persons 40 to 49 years—13 to 15 per cent of the total. Females slightly outnumbered males in all three cities. (See tables 7, 25A.)

Income per Household and per Person

In each of the cities, more than half of all families studied reported annual net family money incomes between $3,000 and $6,000 after federal income taxes. About 8 per cent had less than $2,000, and 14 to 22 per cent had $6,000 or more. (See tables 1, 3A.)

The median family incomes of those reporting in dollars rather than income class were $3,788 in Oakland and $3,970 in Los Angeles. The mean incomes were $4,203 and $4,333, respectively, in those areas. In Sacramento the median family income, as calculated from the distribution of families by income class, was $4,247.

About 37 per cent of the families in Oakland and 36 per cent in Los Angeles had incomes of $1,000 to $2,000 per 21-meal-equivalent person and only 7 per cent in the former and 4 per cent in the latter had as much as $3,000 per person. The median annual incomes per person were $1,312 in Oakland and $1,260 in Los Angeles; the mean incomes per person were $1,558 and $1,478, respectively. (See tables 2, 3A.)

On the whole, the families with the smaller incomes per person had the most family members. For example, the families in Oakland who had less than $1,000 per person averaged 3.8 persons per family, and those in Los Angeles averaged 3.6 persons. Families who had $2,000 or more per person averaged about 2 persons per family in both cities.

Table 3. Households in Oakland and Los Angeles Classified by Weekly Food Expense*

Weekly food expense	Households				Average no. 21-meal-equivalent persons		Average weekly food expense			
							Per household		Per person	
	Oak.	L. A.	Oak.	L. A.	Oak.	L. A.	Oak.	L. A.	Oak.	L. A.
	no.	no.	per cent	per cent						
All households	414	504	100.0	100.0	2.93	2.98	$21.88	$22.15	$7.50	$7.44
Less than $10	13	28	3.1	5.6	2.37	1.88	7.19	8.44	3.03	4.50
$10–19.99	174	193	42.1	38.2	2.32	2.39	15.42	15.40	6.64	6.43
$20–29.99	160	206	38.6	40.9	3.06	3.19	23.76	23.81	7.77	7.47
$30–39.99	46	49	11.1	9.7	3.89	4.02	33.01	33.76	8.49	8.40
$40 and over	21	28	5.1	5.6	5.00	4.73	45.87	48.86	9.17	10.50

* For 414 families in Oakland and 504 families in Los Angeles who reported weekly food expense.

Expense for Food at Home

Families reporting food expense spent an average of $21.88 per week in Oakland, $22.15 in Los Angeles, and $26.59 in Sacramento during the periods surveyed. The families spending under $10 averaged $7 to $9 a week, whereas those spending $30 or more averaged $33 to $50. (See tables 3, 3A.)

The amount spent for food bore a relationship to the size of family and to size of income. For example, families who spent less than $10 a week for food averaged about 2 persons; those who spent $40 or more averaged about 5 persons per household. (See tables 3, 3A.)

ANNUAL FAMILY INCOME	PROPORTION OF ESTIMATED WEEKLY INCOME SPENT FOR FOOD	
	Oak.	*L.A.*
	per cent	*per cent*
All households	26.7	25.6
Less than $2,000	63.6	58.3
$2,000–2,999	42.3	34.4
$3,000–3,999	31.2	32.0
$4,000–5,999	24.6	26.4
$6,000 and over	16.2	16.3

Families in Oakland with annual incomes of $6,000 or more spent 58 per cent more per household or 42 per cent more per person than did those who had $2,000 or less. In Los Angeles, the $6,000-and-over group spent 73 per cent more per household or 30 per cent more per person for food. In Sacramento, food expenditures for families in the higher income group were 93 per cent larger per household or 42 per cent higher per person than they were in the lower income group.

The food expense of the families during the week of the survey represented slightly over one-fourth of their estimated weekly family income. Families in the higher income groups in Oakland and Los Angeles spent a smaller proportion of their income for food than did families in the lower income groups. Similar data were not available for Sacramento since exact incomes were not reported by those families.

Average expense per person for food per week was $7.50 in Oakland, $7.44 in Los Angeles, and $7.82 in Sacramento. This expense varied according to both the size of the family and its income. Families in the same size group tended to spend more for food if they were also in a higher income group. In Sacramento, for example, average food expense per person for 2-person families ranged from $7.85, for those earning less than $2,000, to $15.75 for those earning $10,000 and over. Those with 4 persons ranged from $5.68 to $11.65 per person in the respective income classes. (See table 2A.)

In addition, the larger the family, the less spent for food per person in a given income group. Expenditures of Sacramento families with incomes from $3,000 to $4,000 ranged from $9.73 per person in families with 2 persons, to only $4.11 in those with 6 persons. (See table 2A.)

Occupations of Major Earners

The major earners in approximately 30 per cent of the families studied were craftsmen and operatives. From 26 per cent to 36 per cent were managers or professional or technical workers. Families in which the major earner was engaged in clerical or sales work accounted for 13 to 19 per cent of the families studied. From 12 to 15 per cent were service workers and laborers. The head in about 10 per cent was retired or unemployed. (See tables 3A, 4A.)

The mean annual family income, less federal income tax, of the families in the professional and managerial group was $5,747 in Oakland and $5,531 in Los Angeles. The clerical and sales group had the next highest mean incomes—$4,371 in Oakland and $4,635 in Los Angeles. The mean earnings of the craftsmen and operatives were $3,825 in Oakland and $3,962 in Los Angeles. (See table 4A.)

The craftsmen and operatives reported the largest families—averaging from 3.2 to 3.4 persons—while the average size for the other occupations ranged from 2.3 to 3.1 persons. The mean incomes per person of the craftsmen and operatives were only about three fourths those of the sales and clerical group and about three fifths those of the professional and managerial group. (See table 4A.)

Employment Status, Education, and Color of Homemakers

Homemakers were not employed outside the home in 74 per cent of the families in Oakland and Sacramento and in 80 per cent of those in Los Angeles. These families were larger, on the average, than were the families in which the homemakers worked full or part time outside the home.

HOMEMAKER	AV. NO. 21-MEAL-EQUIVALENT PERSONS PER HOUSEHOLD		
	Oak.	*L.A.*	*Sac.*
Employed	2.38	2.63	3.23
Not employed	3.11	3.07	3.44

The mean annual family incomes in the families where the homemaker was employed were somewhat larger than in those where she was not employed. Since the families of the former group were smaller, their mean incomes per person were more than one fourth larger than those in which the homemaker was not employed. (See table 3A.)

HOMEMAKER	MEAN FAMILY INCOME			
	Per household		*Per person*	
	Oak.	*L.A.*	*Oak.*	*L.A.*
Employed	$4,608	$4,682	$1,675	$1,753
Not employed	4,067	4,234	1,303	1,376

From 57 to 68 per cent of the homemakers in the study had been graduated from high school. From 11 to 19 per cent had attended college but had not been graduated. Six to 9 per cent had graduated from college. From 15 to 23 per cent had attended high school but had not been graduated. The remainder, 15 to 19 per cent, had an eighth-grade education or less. (See tables 3A, 5A.)

On the whole there was a direct relationship between the amount of formal education of the homemaker and the mean family income. In the Oakland families in which the homemaker had schooling through the eighth grade or below, the mean family income was $3,497; in those in which she had been graduated from high school but had no college work, it was $4,408; and in those in which the homemaker had been graduated from college the mean income was $6,698. The mean incomes per person at the respective educational levels were $1,184, $1,476, and $1,839. The relationships between amount of schooling and mean incomes were much the same in Los Angeles. No clear relationship was evident between the amount of formal education of the homemaker and size of family.

In Oakland families, 89 per cent of the homemakers were white; in Los Angeles, 98 per cent. These families were generally smaller than the nonwhite, averaging 2.98 to 3.37 persons as compared with 3.17 to 3.79 persons in families with nonwhite homemakers.

Ethnic Influence on Food Habits

Approximately 80 per cent of the families interviewed stated that their food choices were not affected by the food customs of any foreign nation. About 10 per cent stated that their food preferences were influenced by those in northern European countries, and most of the remaining 10 per cent indicated influences by southern European and Latin American countries.

The families which were influenced by the food habits of southern European and South American countries were, on the average, larger than families in other groups—3.33 persons per household in Oakland as compared with 2.93 for all households. In Los Angeles, they averaged 3.91 persons compared with an all-household average of 2.98. They also had smaller mean family incomes both per household and per person. Their mean income per person was $1,081 in Oakland and $940 in Los Angeles as compared with $1,312 in Oakland and $1,260 in Los Angeles for all families.

Proportion of Meals Eaten Away from Home

Between 80 and 90 per cent of the families ate at least four-fifths of their meals at home during the week studied. The average size of families eating 20 per cent or more of their meals away from home was smaller than the average of all families studied. Their mean family incomes were considerably higher than those of families who ate fewer meals away from home. (See table 3A.)

PER CENT MEALS EATEN AWAY FROM HOME	AV. NO. 21-M-E PERSONS			MEAN FAMILY INCOME PER PERSON	
	Oak.	*L.A.*	*Sac.*	*Oak.*	*L.A.*
Less than 10 ..	3.38	3.41	3.56	$1,083	$1,116
10–19	2.70	2.71	3.10	1,743	1,793
20–29	1.96	2.26	2.85	2,571	2,575
30–39	1.78	2.02	2.64	3,022	2,058
40–52.4	1.46	1.60	1.38	3,448	2,899

Refrigeration Facilities in the Home

Practically all families studied had facilities for refrigerating food. Between 92 and 100 per cent in the three areas had mechanical refrigeration. Only 1 per cent or less had no refrigeration facilities, that is, neither mechanical refrigeration, icebox, nor cooler.

CONSUMPTION OF DAIRY PRODUCTS IN OAKLAND AND LOS ANGELES

Total Weekly Expense for Dairy Products

Dairy products constituted an important item in the food expense of families in both Oakland and Los Angeles. During the week studied, the families in Oakland spent over 17 per cent of their food dollar for dairy products; those in Los Angeles spent almost 20 per cent.

The Oakland families averaged $3.84 per week for dairy products ($1.31 per person); those in Los Angeles averaged $4.33 ($1.45 per person). (See table 4.)

Factors most closely related to the total amount spent for dairy products were the amount spent weekly for food consumed at home, the annual income, and the number of persons in the family. Other related factors were occupation of major earner and education, employment status, and color of homemaker.

Relation to weekly food expense

Families who spent most for their food spent most for dairy products. The amounts in Oakland ranged from $1.52, in families who spent less than $10 a week for food, to $7.01 in those who spent $40 or more. In Los Angeles, this expense ranged from $2.09 to $7.99 in the corresponding food-expense classes.

In Oakland, families spending from $10 to $40 a week for food—92 per cent of all families—used from 17 to 18 per cent of this food expense for dairy products. In Los Angeles, families spending corresponding amounts for food—89 per cent of all families—used from 19 to 21 per cent for dairy products.

The families who spent the largest amounts for food and for dairy products had the largest families. In each city the average number of 21-meal-equivalent

Table 4. Average Weekly Expense for Dairy Products in Households Classified by Weekly Food Expense in Oakland and Los Angeles

Weekly food expense	Av. no. 21-meal-equivalent persons		Total expense for dairy products					
			Average per household		Average per person		Per cent of total food expense	
	Oak.	L. A.	Oak.	L. A.	Oak.	L. A.	Oak.	L. A.
All households	2.93	2.98	$3.84	$4.33	$1.31	$1.45	17.4	19.6
Less than $10	2.37	1.88	1.52	2.09	0.64	1.12	21.1	24.8
$10–19.99	2.32	2.39	2.66	3.24	1.14	1.35	17.2	21.3
$20–29.99	3.06	3.19	4.28	4.63	1.40	1.45	18.0	19.4
$30–39.99	3.89	4.02	5.74	6.60	1.48	1.64	17.4	19.5
$40 and over	5.00	4.73	7.01	7.99	1.40	1.69	15.3	16.0

persons was over twice as large in the families who spent $40 or more a week for food and who averaged over $7 a week for dairy products as in the groups who spent less than $10 for food and about $2 or less for dairy products. (See table 4.)

Even though they were larger, the families in the higher food expense classes averaged higher expense per person for dairy products than did those with lower food expense. The larger amounts spent for dairy products per person were not, however, proportional to the average amount spent for food per person by these families. For example, the average total food expense per person in the highest food expense class in Oakland was over three times the amount spent by the families in the lowest food expense class. However, the average amount spent for dairy products per person was only slightly more than twice as high.

Relation to family income

Families with the higher annual incomes after federal taxes averaged higher expenditures for dairy products than did those with less income. For example, families in Oakland with less than $2,000 a year spent, on the average, $2.44 a week for dairy products, and those with incomes of $6,000 or more spent an average of $4.31. The Los Angeles families in these income classes averaged $3.05 and $5.03 per family, respectively. (See table 6A.)

The average expense per person for dairy products was also higher among families with the larger incomes than among families with smaller amounts. This expense averaged $1.35 in Los Angeles and 98 cents in Oakland for families with incomes of less than $2,000, and $1.67 and $1.57 in the respective cities for families with incomes of $6,000 and over. (See table 6A.)

Although the average number of persons per family was largest in the class with incomes between $3,000 and $4,000, their average expenses for food and for dairy products were not so large as the averages of the families with higher incomes.

When families were grouped according to annual income per person, average expense per household for dairy products was highest, in both Oakland and Los Angeles, in families with incomes of $500 to $999 per person. Above this level, with one exception, the average expense per household decreased with higher income per person. The average expense for dairy products per person increased with higher income per person.

ANNUAL INCOME PER PERSON	AV. WEEKLY EXPENSE FOR DAIRY PRODUCTS			
	Per hld.		*Per person*	
	Oak.	*L.A.*	*Oak.*	*L.A.*
Under $500	$4.09	$3.64	$1.01	$1.17
$500–999	4.34	4.83	1.16	1.30
$1,000–1,499	3.88	4.42	1.29	1.41
$1,500–1,999	3.18	3.82	1.31	1.50
$2,000–2,999	3.49	3.82	1.53	1.75
$3,000 and over	3.40	3.59	1.66	1.87

Relation to number of persons in the household

The average expense for dairy products per household per week tended to increase with increase in number of 21-meal-equivalent persons. In Oakland, families with two persons averaged $2.63 per week and those with four persons averaged $5.00; in Los Angeles these expenditures were $3.08 and $5.43, respectively. The average expense per person was, however, lower in families with four members than in those with only two or three members. (See table 6A.)

When families were classified by income per person and number of persons in the household, the amount spent per household for dairy products at each income level showed, with few exceptions, higher expense in families with more members. The average expenditures per person, however, did not vary consistently with the number of persons in the family in any of these income classes. In families with two and four members—but not in those with three members—the amounts spent for dairy products per household and per person tended to be larger in families with more income per person. (See table 7A.)

Relation to children in family

Families who had children under 16 years of age spent, on the average, 75 per cent more for dairy products per household in Oakland and 58 per cent more in Los Angeles than did families who had no children under that age. On the other hand, in families without children, the expense per person was about the same as or higher than that in families with children. (See table 8A.)

HOUSEHOLDS	AV. WEEKLY EXPENSE FOR DAIRY PRODUCTS			
	Per hld.		*Per person*	
	Oak.	*L.A.*	*Oak.*	*L.A.*
With children	$4.99	$5.16	$1.31	$1.42
Without children	2.85	3.26	1.32	1.53

In two-adult households the average amount spent for dairy products per week showed an increase with increased numbers of children. The difference was marked between families who had no children under 16 years and those who had one or more of that age. Expense per person in Los Angeles was highest in families with no children, but in Oakland was highest in those with one child. (See table 9A.)

TWO-ADULT HOUSEHOLDS	AV. WEEKLY EXPENSE FOR DAIRY PRODUCTS			
	Per hld.		*Per person*	
	Oak.	*L.A.*	*Oak.*	*L.A.*
All households	$3.49	$3.96	$1.37	$1.48
No children	2.43	2.93	1.35	1.57
One child	4.05	4.03	1.46	1.49
Two children	4.85	5.40	1.30	1.48
Three children	6.48	5.86	1.36	1.23

Other relationships

The more meals families ate away from home, the less they spent per household for dairy products used at home. Families who ate less than 10 per cent of their meals away from home averaged $4.17 per household per week in Oakland and $4.63 in Los Angeles. Those eating from 40 to 52 per cent of their meals away spent only $2.36 in Oakland and $3.26 in Los Angeles. (See table 6A.)

On the other hand, families who ate 40 to 52 per cent of their meals away from home averaged higher expense for dairy products per person than those who ate less than 10 per cent of their meals away from home. The average amounts ranged from $1.67 for the former group to $1.23 for the latter, in Oakland, and from $2.03 to $1.36 in Los Angeles. (See table 6A.)

Since the mean income per person was higher and the size of the family smaller among families who ate more meals away from home, their higher expense per person for dairy products was possibly related to their higher income per person. In Oakland, families of craftsmen and operatives averaged higher weekly expense per household for dairy products than did families of other kinds of workers. In Los Angeles, families of professional and managerial workers averaged highest expense for dairy products. In both cities the latter families who had highest mean incomes per household and per person had highest average expense per person for dairy products. (See table 6A.)

OCCUPATION OF MAJOR EARNER	AV. WEEKLY EXPENSE FOR DAIRY PRODUCTS *Per hld.* *Oak.*	*L.A.*	*Per person* *Oak.*	*L.A.*
Prof. & managerial..	$4.06	$4.91	$1.46	$1.70
Clerical & sales	3.62	3.93	1.36	1.38
Craftsmen & operatives	4.14	4.28	1.30	1.28
Other occupations ..	3.42	4.19	1.09	1.38
Retired, unemployed, etc.	3.41	3.10	1.26	1.32

Families in which the homemaker was not gainfully employed averaged higher weekly expense for dairy products than did those in which she was employed full or part time. In Oakland, the families of employed homemakers spent an average of $3.18 per household; those in which she was not employed, $4.08. In Los Angeles, the respective families spent $4.02 and $4.39 per week. On the other hand, the average expense per person was somewhat higher in families in which the homemaker was employed—$1.34 (Oakland) and $1.53 (Los Angeles) as compared with $1.31 and $1.43, respectively, in families of homemakers who were not employed. The average size of the former families was smaller than that of the latter, and their mean income per household and per person was larger. (See table 6A.)

Families in which the homemaker had the most formal education also spent the most per week for dairy products. The lowest expenditures, $3.15 in Oakland and $4.11 in Los Angeles, were made by families in which homemakers had completed eight grades or less. The largest expenditures, $4.46 in Oakland and $4.58 in Los Angeles, were incurred by families in which the homemaker was a college graduate. With one exception, the average expense per person for dairy products, as well as the mean income per person, increased from one educational class to the next higher one. (See table 6A.)

Families whose food habits were influenced by those of southern European or Latin American countries had higher average weekly expense for dairy products than did families influenced by northern European countries and those who were not influenced by the food habits of a foreign country. The families whose food habits were influenced by the southern European or Latin American countries had larger families, and their mean incomes per household and per person were smaller than those of other families. (See table 6A.)

Total Quantities of Dairy Products Consumed

It is often desirable to relate the consumption of dairy products as a group to place of consumption, time of consumption, and characteristics of households that used them. In order to study such relationships it is necessary to convert the quantities of individual products used to a common denominator.

One method of converting quantities of different products to a common base is that in which the amount of milk fat contained in a quart of whole milk with a specified milk-fat content is used as the common denominator. The amounts of milk fat in all other dairy products are related to the amount of milk fat in a quart of such milk. (See "Definitions," p. 2.) This method is commonly used by those working closely with the dairy industry. It is especially important from the standpoint of pricing, and was particularly so when nonfat solids in milk had little economic value. It does not, however, take into consideration the relative value of the different products from the nutritional standpoint.

Another method commonly employed by groups interested in the nutritive value of dairy products is the use of amounts of protein and minerals in a quart of milk as the common denominator. As in the case of milk fat, equivalents in terms of amounts of protein and minerals for each dairy product are developed. (See "Definitions," p. 2.) Although in this method the emphasis is on nutritive value, all the contributions made by dairy products to the diet are not taken into consideration.

Obviously, the method in which milk fat is used as the common denominator places greater emphasis on products which contain high amounts of milk fat, such as butter, half-and-half, cream, and ice cream, than does the method in which protein and minerals are used. The latter method places much more emphasis on fluid milk and cottage cheese than does the former.

When the quantities of dairy products consumed during one week by families in Oakland and Los Angeles were converted to the fluid milk equivalent by these two methods, the differences were quite evident. When milk fat was used as the basis for conversion, fluid milk represented only about 43 per cent of the total dairy products used in terms of milk equivalent. When protein and minerals were used, fluid milk constituted over two thirds of the total milk equivalent. In the former case butter accounted for 23 to 26 per cent of the total, but in the latter it was not represented since butter contains only negligible amounts of protein and minerals. (See table 5.)

This study was concerned with the importance of dairy products in the diets of California families as well as with the quantities consumed and the factors affecting consumption. On the whole, the use of protein and minerals as the common denominator seemed best suited to this study. Therefore, quantities of all dairy products except butter were measured in terms of protein and minerals in fluid milk. "Milk equivalent" used throughout this publication refers to equivalent in protein and minerals in fluid milk. For example, "5 quarts milk equivalent" means that the quantity of the specified product used contains the same amounts of protein and minerals as 5 quarts of fluid milk.

During the week studied, Oakland families consumed an average of 14.5 quarts (milk equivalent) of dairy products, excluding butter. The Los Angeles families averaged 16.6 quarts per household. (See table 6A.)

About one fourth of the families in Oakland used 5 to 10 quarts (milk equivalent) during the week. Almost one fourth used 10 to 15 quarts, and over one fourth used 15 to 25 quarts. In Los Angeles, 17 per cent of the households used 5 to 10 quarts, 27 per cent used 10 to 15 quarts, and 33 per cent used 15 to 25 quarts. (See table 10A.)

The average amounts consumed per person per week were 4.9 quarts in Oakland and 5.6 quarts in Los Angeles. The largest proportions (28 per cent) of the households used 3.5 to 4.9 quarts per person during the week studied. About one fifth used 5 to 6 quarts per person. However, 25 per cent of the families in Oakland and 16 per cent in Los Angeles used less than 3.5 quarts, while only 8 per cent in Oakland and 16 per cent in Los Angeles used 8 quarts or more per person. (See table 10A.)

The higher consumption of dairy products in Los Angeles may be attrib-

Table 5. Comparison of Milk Equivalents Computed on the Basis of Protein and Minerals and on the Basis of Milk Fat of Dairy Products Consumed During One Week by Households in Oakland and Los Angeles*

Products	Proportions of total quantities consumed				Average quantities used per household				Average quantities used per person			
	Equiv. in protein and minerals		Equiv. in milk fat		Equiv. in protein and minerals		Equiv. in milk fat		Equiv. in protein and minerals		Equiv. in milk fat	
	Oak.	L. A.	Oak.	L. A.	Oak.	L. A.	Oak.	L. A.	Oak.	L. A.	Oak.	L. A.
	per cent	per cent	per cent	per cent	qts.	qts.	qts.	qts.	qts.	qts.	qts.	qts.
All dairy products	100.0	100.0	100.0	100.0	14.5	16.6	21.8	24.6	4.94	5.58	7.46	8.27
All fluid milk	69.9	68.7	42.6	43.2	10.0	11.4	9.3	10.7	3.45	3.83	3.18	3.57
Half-and-half	1.6	2.1	4.6	6.1	0.2	0.4	1.0	1.5	0.08	0.12	0.34	0.51
Cream	0.4	0.5	3.1	3.8	0.1	0.1	0.7	0.9	0.02	0.03	0.24	0.32
Evaporated milk	6.8	4.8	4.7	3.5	1.0	1.8	1.0	0.8	0.33	0.27	0.35	0.28
Condensed and dry milk	0.8	1.0	0.5	0.2	0.1	0.1	0.1	†	0.04	0.05	0.04	0.02
Cottage cheese	6.8	7.8	1.6	1.9	1.0	1.3	0.3	0.5	0.34	0.44	0.12	0.16
American Cheddar cheese	9.0	9.6	8.9	9.7	1.3	1.6	2.0	2.4	0.44	0.53	0.67	0.80
Other cheese	2.0	2.9	2.8	3.7	0.3	0.5	0.6	0.9	0.10	0.16	0.21	0.31
Frozen desserts	2.8	2.6	5.2	4.8	0.4	0.4	1.1	1.2	0.14	0.15	0.37	0.39
Butter‡	...	...	26.0	23.1	...	...	5.7	5.7	...	...	1.94	1.91

* See "Definitions," p. 2, for factors used to convert quarts of fluid milk and pounds of other products to milk equivalent quarts.
† Less than 0.005 quart per household.
‡ No milk equivalent in protein and minerals.

uted in part to the warmer weather prevailing when the survey was taken. The mean temperature there during the survey was approximately 10 degrees higher than that in Oakland when its survey was taken.

The seasonal survey in Sacramento, which was carried on at a later date, indicated that families in that area consumed more dairy products, especially fluid milk, cottage cheese, and frozen desserts, in warmer weather. These three products account for nearly three fourths of the increase in dairy products consumption in Los Angeles over that of Oakland during the period studied.

As in the case of total food expense, the factors which seemed to bear the closest relationship to total consumption of dairy products were weekly food expense, income, and number of persons in the family. In general, the consumption pattern with respect to variations in the above factors was much the same as in total expense.

Relation to weekly food expense

Families that spent more for food used more dairy products. The average quantities used per household and per person, in milk equivalent, were higher, in both cities, when weekly food expense was higher. For example, families spending $10 to $20 per week for food used, on the average, 10 to 13 quarts, and those spending $30 to $40 averaged 20 to 24 quarts per household per week. (See table 6A.)

The proportions of families that used less than 10 quarts per week were much higher for the groups who spent less than $20 per week for food than for the groups who spent $20 or more for food. Likewise, the proportions of the families who spent less than $20 for food and who used 15 quarts or more were much lower than those of families who spent $20 or more.

WEEKLY FOOD EXPENSE	HOUSEHOLDS USING: *Less than 10 qts.*		*15 qts. or more*	
	Oak.	*L.A.*	*Oak.*	*L.A.*
	per cent	*per cent*	*per cent*	*per cent*
All classes	36.3	23.0	40.1	49.5
Less than $10	69.2	57.1	...	10.8
$10–19.99	56.9	34.7	17.2	27.5
$20–29.99	24.4	13.7	52.5	63.5
$30–39.99	10.8	4.2	71.0	82.5
$40 and over	9.5	7.2	81.0	82.1

Quantities used per person did not vary much with variation in food expense. In most of the food-expense classes, families averaged 5 to 6 quarts per person per week. (See table 6A.) However, only 7 to 28 per cent of the families in each food expenditure class used 5 to 6 quarts per person. (See table 10A.)

Relation to annual family income

Total average quantities of dairy products consumed per household for the week studied tended to be higher with higher annual family income although the changes were small in families with incomes of $3,000 and over. The average quantities consumed per person rose rather consistently, but in very small amounts, with increased family income. Oakland families with incomes under $2,000 averaged 4.3 quarts per person; those with $6,000 and over averaged 5.2 quarts. The corresponding quantities consumed by Los Angeles families were 5.4 and 5.9 quarts. (See table 6A.)

ANNUAL FAMILY INCOME PER PERSON	AVERAGE QUANTITIES USED (MILK EQUIVALENT) *Per hld.*		*Per person*	
	Oak.	*L.A.*	*Oak.*	*L.A.*
	qts.	*qts.*	*qts.*	*qts.*
Under $500	19.1	15.6	4.7	5.0
$500–999	18.1	20.4	4.8	5.4
$1,000–1,499	15.0	17.8	5.0	5.7
$1,500–1,999	11.4	14.3	4.7	5.6
$2,000–2,999	11.2	12.9	4.9	5.9
$3,000 and over	11.2	12.2	5.5	6.4

On the other hand, the average consumption per household fell with increased income per person. Except at the lowest income level in Los Angeles, the decreases were quite consistent from the lowest to the highest income class. The average consumed per person varied little with income per person except at the highest income level.

Relation to number of persons in the family

As might be expected, the average consumption of dairy products per household per week was higher in households with the larger number of persons. Two-person families in Oakland averaged 9 quarts (milk equivalent) and those in Los Angeles averaged 11 quarts per household. Families with four persons averaged 20 quarts in both cities. (See table 6A.)

NUMBER 21-MEAL-EQUIVALENT PERSONS	AV. QUANTITIES USED (MILK EQUIVALENT) BY HOUSEHOLDS WITH $500–$999 ANNUAL FAMILY INCOME PER PERSON			
	Per hld.		*Per person*	
	Oak.	*L.A.*	*Oak.*	*L.A.*
	qts.	*qts.*	*qts.*	*qts.*
Two	9.0	10.4	4.5	5.3
Three	15.4	16.2	5.0	5.4
Four	18.5	21.0	4.7	5.4
Five	25.1	26.2	5.2	5.3
Six or more	30.4	37.4	4.7	5.9

Oakland families with two persons averaged the lowest consumption per person (4.6 quarts), and in Los Angeles, families with four persons had the lowest average consumption per person (5.3 quarts). (See table 6A.)

When families were grouped according to annual family income per person and number of persons in household, average consumption per household within a given income group was higher with increased number of persons in the household. However, the consumption per person in a particular income group did not vary consistently with the number of persons per family. (See table 7A.)

Relation to children in family

Families in Los Angeles who had children under 16 years of age used, on the average, about 73 per cent more dairy products, in terms of milk equivalent, per week than did families who had no children under 16 years. In Oakland, the former group averaged over twice as much as the latter group. Since families with children are usually larger than those without children the difference in quantities consumed per person was not so large, especially in Los Angeles where families with children averaged almost the same quantity per person as those without children. (See table 8A.)

HOUSEHOLDS	AV. MILK EQUIVALENT			
	Per hld.		*Per person*	
	Oak.	*L.A.*	*Oak.*	*L.A.*
	qts.	*qts.*	*qts.*	*qts.*
Without children	9.8	11.8	4.6	5.5
With children	19.8	20.4	5.2	5.6

As total family income increased, families with children tended to increase their total consumption of dairy products in both Oakland and Los Angeles. On the other hand, families without children varied their total consumption comparatively little with change in family income although there was some tendency to use more per household. The quantity used per person tended to increase slightly as family income increased in both families with and without children. (See table 8A.)

TWO-ADULT FAMILIES	AV. QUANTATIES USED (MILK EQUIVALENT)			
	Per hld.		*Per person*	
	Oak.	*L.A.*	*Oak.*	*L.A.*
	qts.	*qts.*	*qts.*	*qts.*
No child	8.2	10.3	4.6	5.6
One child	15.0	15.7	5.4	5.8
Two children	19.7	21.0	5.3	5.8
Three children	27.2	26.0	5.7	5.4

Two-adult families increased their consumption per household rather consistently with increase in number of children. In Los Angeles the difference in consumption per person was small with change in number of children. In Oakland average consumption per person in families with children was higher than in those without children. (See table 9A.)

When these two-adult families were grouped according to annual family income, those within a given income group, with few exceptions, increased their consumption of dairy products per household as number of children increased. In some cases the consumption per person within a given income group also increased with increase in children. In each income group the average consumption of families of two adults and with no children was considerably lower than in households with one, two, or three children under 16 years. This was often but not always the case regarding the average quantity used per person. (See table 9A.)

Other relationships

The relationships between total quantities of dairy products consumed (in milk equivalent) with other factors were much the same as the relations between total expense for dairy products and these factors which have been discussed previously. These include the proportion of meals eaten away from home, occupation of major earner, and the education, employment status, and color of homemaker. (See table 6A.)

Major Dairy Products Consumed

Twenty-six dairy products were included in the Oakland and Los Angeles surveys. As indicated by the amounts spent for them and the quantities used, there was a great difference in their relative importance.

Expense

Fluid milk far outweighed other individual dairy products in importance, comprising over half the total amount spent for dairy products. Practically all this expense was for whole milk.

PRODUCT	EXPENSE PER WEEK			
	Average per hld.		*Per cent*	
	Oak.	*L.A.*	*Oak.*	*L.A.*
All dairy products	$3.84	$4.33	100.0	100.0
Fluid milk:	2.01	2.26	52.3	52.2
Whole	1.85	2.04	48.3	47.1
Other	0.16	0.22	4.0	5.1
Cream, half-&-half	0.24	0.33	6.3	7.6
Evaporated milk	0.16	0.13	4.1	3.1
Cond. & dry milk	0.03	0.03	0.8	0.8
Cheese	0.59	0.75	15.4	17.3
Frozen desserts	0.39	0.41	10.1	9.4
Butter	0.42	0.42	11.0	9.6

The total expense for fluid milk averaged 69 and 76 cents per person in Oakland and Los Angeles, respectively. Only 16 and 22 cents per household, or 5 and 8 cents per person, were spent for fluid milk other than whole milk. Of these milks, nonfat and buttermilk were most important. Each accounted for about 1 per cent of the total expense or 6 and 5 cents per household per week in Oakland and Los Angeles, respectively. (See table 11A.)

Cheese, including cottage cheese, was next in importance to fluid milk. The amounts spent were 59 and 75 cents per family (20 and 25 cents per person). American Cheddar was the most important of the cheeses with cottage cheese a close second. In both cities the families studied spent about 7 per cent of their total expense for dairy products for American Cheddar—an average of 27 and 32 cents per family or 9 and 11 cents per person per week in Oakland and Los Angeles, respectively.

About 6 per cent of the total expenditure for all dairy products was used for cottage cheese, which amounted to 21 and 26 cents per family; 7 and 8 cents per person. In Oakland 11 cents and in Los Angeles 17 cents per family were spent for all kinds of cheese other than cottage cheese and American Cheddar. Of these expenditures, that for hard cheese was slightly higher than that for soft cheese. (See table 11A.)

Butter and frozen desserts each accounted for from 9 to about 11 per cent of the total expense for dairy products. Families in each city averaged 42 cents per household for butter and 39 and 41 cents for frozen desserts. This amounted to about 14 cents per person for each product. Ice cream was by far the most important of the frozen desserts, accounting for about 9 per cent of the total expense as compared with less than 1 per cent for sherbet and ice milk. (See table 11A.)

Half-and-half and all kinds of cream accounted for only 6 and 8 per cent of the total expense. More was spent for half-and-half than for cream, and considerably more for whipping cream than for table cream in Oakland.

Evaporated milk was even less important than half-and-half and cream since families spent only 13 and 16 cents per family and 4 and 5 cents per person for it. Only 3 cents per family (1 cent per person) were spent for **dry** and **condensed milk** and **infant formula.** (See table 11A.)

Milk equivalents

The relative importance of the different dairy products is also indicated by their milk equivalents which have been defined here as the equivalent quantities of fluid milk to which the various dairy products, except butter, are equivalent in protein and mineral. (See "Definitions," p. 2.)

Only slightly more than half the total spent for dairy products was spent for fluid milk, but this expenditure accounted for about 69 per cent of the total milk equivalent provided by all the dairy products consumed by the families studied during the week. Whole milk provided from 63 to 64 per cent of the total milk equivalent.

About 10 per cent of the money spent was used for frozen desserts, but they provided only about 3 per cent of the total milk equivalent. American Cheddar cheese provided about 9 per cent, and cottage cheese 7 and 8 per cent. Evaporated milk accounted for 5 to 7 per cent; half-and-half and cream together supplied only about 2 per cent.

Quantities used

From 10 to over 11 quarts of fluid milk were used per week, on the average, by the families studied. This was 3.5 quarts and 3.8 quarts per person in Oakland and Los Angeles, respectively. From 9 to 10 quarts of whole milk were used per family.

PRODUCT	AV. QUANTITY PER WEEK			
	Per hld.		*Per person*	
	Oak.	*L.A.*	*Oak.*	*L.A.*
	qts.	*qts.*	*qts.*	*qts.*
Fluid milk:	10.1	11.4	3.5	3.8
Whole	9.3	10.4	3.2	3.5
Other	0.8	1.0	0.3	0.3
	lbs.	*lbs.*	*lbs.*	*lbs.*
Cream, half-&-half	0.8	1.1	0.3	0.4
Evaporated milk	1.1	0.9	0.4	0.3
Cond. & dry milk	0.1	0.1	*	*
Cheese	1.2	1.6	0.4	0.6
Frozen desserts	0.8	0.8	0.3	0.3
Butter	0.5	0.5	0.2	0.2

---

* Less than 0.05 pound.

From 0.4 to 0.5 pound of American Cheddar cheese and from 0.7 to 0.9 pound of cottage cheese were used, on the average, per family. Consumption of other cheese amounted to only 0.1 to 0.2 pound per family. (See table 12A.)

From 0.6 to 0.9 pound of half-and-half and about 0.2 pound of all kinds of cream were, on the average, used per family per week. About 1 pound of evaporated milk was used per family in Oakland, and slightly less than 1 pound by Los Angeles families. About 0.8 pound of frozen desserts was used per family, including 0.7 pound of ice cream. Families averaged slightly over 0.5 pound of butter per week. (See table 12A.)

Households using major dairy products

Although 98 per cent of the families used some kind of fluid milk, only small proportions used some of the other products during the week studied. (See table 12A.)

Over 95 per cent of the families used whole fluid milk, but only 28 to 36 per cent used any other kind of fluid milk. More families used buttermilk than nonfat milk.

From 67 to 70 per cent of the families used American Cheddar cheese, and almost as many, 59 to 68 per cent, used cottage cheese. Only 32 to 40 per cent used any other kind of cheese.

About half of the families (47 per cent in Oakland, 53 per cent in Los Angeles) used some kind of frozen dessert, mainly ice cream. Only a very few used sherbet or ice milk. About 52 per cent used butter during the week of the study.

Only 28 to 38 per cent used half-an-half, and 25 to 31 per cent, any kind of cream. From 11 to 17 per cent used whipping cream. Only 4 to 6 per cent used condensed or dry milk or infant formula.

A comparison of the average quantities of a specific product used by the families who used it during the week studied with the average quantities used by all the families in the study reveals considerable differences. (See table 12A.)

The average amounts of whole fluid milk used by the two groups did not vary much since a very large proportion of the families used it. However, since only about 8 per cent used nonfat milk, the average was over 4 quarts per family using it, compared with an average of about 0.3 quart for all families in the study. Families who used buttermilk averaged about 2 quarts per family.

Families using cottage cheese averaged from 1.2 to 1.4 pounds; for American Cheddar cheese, the average was 0.6 to 0.7 pound. About 1.6 pounds of frozen desserts and over 1 pound of butter were used, on the average, by families using these products during the week studied. Evaporated milk averaged 2.3 pounds per family.

All Fluid Milk

About 98 per cent of the families interviewed during the week of the survey used fluid milk, all kinds.

Weekly food expense, annual income per family and per person, and the number of persons (especially children) in the family seemed to be more closely related to the quantities used and the expenditures for fluid milk than did other factors analyzed. The occupation of the major earner and the employment status and education of the homemaker did not show definite relationships to the use of fluid milk although the patterns of behavior in the two areas studied were similar.

Relation to weekly food expense

Practically all families who spent $10 or more per week for food used some fluid milk during the week studied. However, only 69 per cent of those spending less than $10 per week used any. This accounts in large measure for the considerable difference in consumption per household for those spending less than $10 and those spending $10 or more for food.

FOOD EXPENSE PER WEEK	AV. QUANTITIES USED PER WEEK			
	Per hld.		*Per person*	
	Oak.	*L.A.*	*Oak.*	*L.A.*
	qts.	*qts.*	*qts.*	*qts.*
Less than $10	3.56	6.38	1.50	3.40
$10–19.99	7.07	8.07	3.07	3.37
$20–29.99	11.45	12.88	3.74	4.04
$30–39.99	14.41	16.91	3.71	4.21
$40 and over	18.87	20.03	3.77	4.23

Families who had highest food expense used largest average quantities of fluid milk per household. They also used somewhat larger quantities per person than did those families who spent less for food.

Average expense per household for fluid milk was 65 cents in Oakland families who spent less than $10 per week for food and $3.66 in families who spent $40 or more. These expenditures were $1.22 and $4.09, respectively, in Los Angeles. The average expense per person in corresponding food expense classes was 28 and 73 cents in Oakland and 65 and 86 cents in Los Angeles.

Relation to income

In general, average quantities of fluid milk used per household were higher in families where total annual family income was high, but in both Oakland and Los Angeles, families with incomes of $6,000 and over averaged less than families with incomes between $3,000 and $6,000. In Oakland the quantities consumed ranged from 7.7 quarts for families with less than $2,000 to 11.8 quarts for families with $3,000 to $4,000 yearly. In Los Angeles, consumption ranged from 8.8 quarts for families with less than $2,000 to 12.4 quarts for families with $4,000 to $6,000. Average consumption per person varied from 3.1 to 3.6 quarts in Oakland and from 3.3 to 4.0 quarts in Los Angeles.

ANNUAL FAMILY INCOME PER PERSON	AV. QUANTITIES USED PER WEEK			
	Per hld.		*Per person*	
	Oak.	*L.A.*	*Oak.*	*L.A.*
	qts.	*qts.*	*qts.*	*qts.*
Less than $500	14.50	11.67	3.57	3.76
$500–999	13.44	14.56	3.60	3.90
$1,000–1,499	10.35	12.35	3.44	3.93
$1,500–1,999	7.93	9.29	3.27	3.64
$2,000–2,999	7.49	8.18	3.28	3.76
$3,000 and over	6.96	7.70	3.40	4.01

Average expenditures for fluid milk followed much the same pattern as average quantities. Families with less than $2,000 spent $1.52 and those with $3,000 to $4,000 averaged $2.35 in Oakland. In Los Angeles the former group averaged $1.74 and the latter, $2.44 per week.

When families were classed according to annual family income per person there was a tendency for both average consumption and expense per household and per person to be lower with higher income per person.

Families with less than $500 income per person per year spent $2.87 per week for fluid milk in Oakland and $2.18 in Los Angeles. Those with $3,000 and over averaged $1.38 in Oakland and $1.46 in Los Angeles. Average expenditures per person in Oakland were 71 and 67 cents, respectively, in the same income groups. Los Angeles families with less than $500 averaged 70 cents per person, and those with $500 to $1,500 averaged 77 cents.

Relation to number of persons in the family

Households with two 21-meal-equivalent persons in Oakland used an average of 5.9 quarts; those with three persons used 9.8 quarts; and those with four used 14.9 quarts. The corresponding quantities used by Los Angeles families were 6.99 quarts, 11.5 quarts, and 14.6 quarts. The average quantity used per person by two-person families in Oakland was 3.1 quarts, by three-person families, 3.4 quarts, and by four-person families, 3.8 quarts. In Los Angeles the corresponding quantities were, respectively, 3.64 quarts, 4.0 quarts, and 3.8 quarts.

Families with four members spent more per household and per person than did families with three members, and those with three members spent more than those with two members.

NUMBER 21-M-E PERSONS	AVERAGE EXPENSE PER WEEK			
	Per hld.		*Per person*	
	Oak.	*L.A.*	*Oak.*	*L.A.*
Two	$1.17	$1.41	$0.61	$0.73
Three	1.97	2.23	0.69	0.76
Four	2.95	2.95	0.76	0.76

Relation to children in the family

Families with children consumed an average of at least twice as much fluid milk per household as did families without children under 16 years. The average quantities used per person were about 17 to 28 per cent higher in families with children.

HOUSEHOLDS	AV. QUANTITIES USED PER WEEK			
	Per hld.		*Per person*	
	Oak.	*L.A.*	*Oak.*	*L.A.*
	qts.	*qts.*	*qts.*	*qts.*
With children	14.4	14.6	3.8	4.0
Without children	6.3	7.3	3.0	3.4

The average expense per household per week for families with children was $2.86 in Oakland and $2.89 in Los Angeles. Expense for families without children was only $1.27 in Oakland and $1.44 in Los Angeles. The expense per person averaged 75 cents in Oakland and 79 cents in Los Angeles in families with children, and 59 cents and 68 cents, respectively, for families without children. Families with children used 56 to 57 per cent of their total expense for dairy products for fluid milk, while families without children used only 44 per cent. Average expense per household and per person did not show any clear-cut relationship to size of family income. (See table 15A.)

TWO-ADULT HOUSEHOLDS	AV. QUANTITIES USED PER WEEK			
	Oak.	*L.A.*	*Oak.*	*L.A.*
	qts.	*qts.*	*qts.*	*qts.*
No children	5.3	6.4	2.9	3.4
One child	10.6	10.8	3.8	4.0
Two children	14.8	15.4	4.0	4.2
Three children	20.1	19.2	4.2	4.0

Two-adult families with one child averaged almost twice as much fluid milk per week as two-adult families without children, and those with three children used almost twice as much, on the average, as those with one child. The average amount used per person in Oakland was highest in families with three children, and in Los Angeles in families with two children. Families in the higher income groups, with three children, averaged larger quantities per household and per person than did those with lower incomes. This was not quite so evident in families with one, two, or no children. (See table 16A.)

Average expense per household in two-adult families in Oakland ranged from $1.06 (no children) to $4.01 (three children). Comparable figures for Los Angeles were $2.07 and $3.69, respectively.

Average expense per person in Oakland ranged from 59 cents (no children) to 84 cents (three children). In Los Angeles, families with no children and with three children averaged 77 cents; those with two children averaged the highest—85 cents. (See table 16A.)

Other relationships

The more meals families averaged away from home, the less they spent for fluid milk and the less they used per household. Average expense and quantity per person, on the other hand, tended to be higher in Los Angeles as families ate larger proportions of their meals away from home.

Families with white homemakers spent more for and used larger quantities of fluid milk per household and per person than did families with nonwhite homemakers. However, the latter families spent a slightly larger proportion of their total expense for dairy products for fluid milk than did the former group.

Kinds of fluid milk used

Whole milk accounted for about 91 per cent of the total quantity of fluid milk used and for about 92 per cent of the total amount spent for fluid milk. (See tables 11A, 12A.)

Of the whole milk used by the Oakland families, homogenized milk with standard fat content accounted for 77 per cent of both the total quantity used and the total expense for all dairy products. In Los Angeles, it accounted for 63 per cent of both quantity and expense for all dairy products. The other kinds of whole milk —of which 2.1 quarts were used, on the average, in Oakland and 3.8 quarts in Los Angeles—was largely the standard fat content milk which was not homogenized and extra-fat milk.

Three fourths of the families in Oakland and nearly two thirds of those in Los Angeles used homogenized whole milk during the week studied. Average amounts used were 7.2 quarts in Oakland and 6.6 quarts in Los Angeles. The families averaged $1.43 per week in Oakland and $1.29 per week in Los Angeles for this kind of milk.

The average quantities used and the expense for homogenized milk per household and per person increased from one food expense class to another quite consistently for families spending less than $40 per week for food. Those spending $40 or more tended to use smaller quantities and to spend less.

Families with annual family incomes between $3,000 and $4,000 averaged higher consumption of homogenized milk than did families in any other income group. They used larger average quantities per household and per person, and spent larger amounts. Also, the proportions of families who used homogenized milk were larger in this income class than in any of the others.

When families were classified according to income per person the average quantity used and the average expense per household were lower in families with higher income per person. There was a similar tendency for average quantities and expense per person to be smaller in the latter groups, especially in Oakland. Average quantities used and amounts spent, both per person and per household, were higher in larger families.

Families with children used over twice as much homogenized milk per household and about twice as much per person as families without children. The average expense per household and per person followed much the same pattern as quantities consumed.

In Oakland, homogenized milk accounted for almost 40 per cent of the total milk equivalent used by the families without children and 55 per cent of that used by families with children. In Los Angeles, the proportions were 32 and 43 per cent, respectively. The proportion of total expense for dairy products was about 60 per cent higher in Oakland and almost 50 per cent higher in Los Angeles in families who had children than in those who did not.

In the two-adult households, the families in Oakland who had three children consumed over five times as much homogenized milk per household and in Los Angeles, two and one-half times as much, as families who had none. In Oakland the quantity used per person in families with three children was about twice as high as in families with no children. In Los Angeles, families with two children had higher average consumption per person than did families with one child and with three or no children. The expense per household and per person increased in much the same manner as the quantities consumed.

Fluid milk other than whole milk constituted only 8 to 9 per cent of the total quantity of fluid milk used and of the total amount spent for it.

Families in Oakland used, on the average, 0.83 quart per week; those in Los Angeles, 1.03 quarts. The expense for this milk averaged only 16 cents and 22 cents, respectively, per household per week. (See tables 11A, 12A.)

Most of the fluid milk other than whole milk was nonfat milk and buttermilk, these two products accounting for two thirds to almost three fourths of that used. About one-third quart of each was used per week by the families studied. From 14 to 19 per cent of the households used buttermilk, but only 8 per cent used nonfat milk. (See tables 11A, 12A.)

Families with children in both Oakland and Los Angeles used, on the average, about 1 quart of fluid milk other than whole milk during the week studied. Families in Los Angeles who had no children also averaged about 1 quart, but those in Oakland used only about two-thirds quart per household. In both areas, the amount used per household and per person in the two-adult families ranged upward with the number of children, from one to three. The largest average quantities per household were used by families with three children, but the largest average quantities per person were used by families with no children.

How fluid milk was used

The families studied used the various kinds of fluid milk in many ways during the week they were surveyed. Some of the uses were very important while others were unimportant from the standpoint of the proportions of the families using and the average quantities used in specific ways.

Use as a beverage. Very high proportions of the families used some form of fluid milk as a beverage. Whole milk was used most frequently in this way. From 61 to 70 per cent of the families used homogenized milk as a beverage. From 10 to 16 per cent used buttermilk, and about 8 per cent used nonfat milk in this way. All the families in Oakland and 93 per cent of those in Los Angeles who used nonfat milk during the week of the survey used it as a beverage. From 70 to 85 per cent of the families who used buttermilk used it in this way. (See table 6.)

Not only did large proportions of the families use fluid milk as a beverage, but the proportions of the different kinds of milk used in this way were very high. From three fourths to nearly nine tenths of the homogenized and nonfat milk and buttermilk, and all the chocolate drink, were consumed in this manner. (See table 6.)

Since fluid milk constituted such an important portion of all the dairy products consumed by the families surveyed and since such large proportions of the different kinds of milk were used as a beverage, this usage was studied in detail and is discussed in the following section.

Use in food preparation. Food preparation was the second most important use of fluid milk. This use, however, did not approach the importance of its use as a beverage.

Three fifths or more of the households used homogenized milk in food preparation. Almost nine tenths of those using it used it in this way. About 8 per cent used buttermilk, and 2 per cent used nonfat milk in preparing foods during the week. From two fifths to over half of those using buttermilk and over one fifth of those using nonfat milk used it in food preparation. (See table 6.)

About 12 per cent of the homogenized milk, 12 to 22 per cent of the buttermilk, and 5 per cent of the nonfat milk went into food preparation. The average amount of homogenized milk used per household in this way by all the households studied was about four-fifths quart, while the average amounts of the other milks used in this way were very small. Those families who used nonfat milk in food preparation, however, averaged over three-fourths to 1 quart per week. Those who used buttermilk in food preparation averaged from one-half to nine-tenths quart.

About 30 per cent of all the homogenized milk used in food preparation was used in baked goods, and over half of the households who used it in food preparation used it in baked goods. About 20 per cent of it was used in sauces and casserole dishes, another 20 per cent in puddings and other desserts, 10 per cent in soups, and the remainder in miscellaneous ways. All the buttermilk used in food preparation was used in preparing baked goods. About 30 per cent of the nonfat milk was used in preparing desserts and 20 per cent in baked goods.

Other uses. Fluid milk, especially whole milk, was frequently used at the

Table 6. Uses of Homogenized Milk, Nonfat Milk, and Buttermilk During One Week, by Households in Oakland and Los Angeles

Uses	Total used in each way		Per cent of households using				Average quantities per household			
			All households		Households using*		All households		Households using*	
	Oak.	L. A.	Oak.	L. A.	Oak.	L. A.	Oak.	L. A.	Oak.	L. A.
	per cent	per cent					qts.	qts.	qts.	qts.
Homogenized milk:										
All uses	100.0	100.0	75.0	64.7	100.0	100.0	7.16	6.60	9.55	10.20
As beverage	74.2	73.8	69.8	60.8	93.1	94.0	5.31	4.87	7.61	8.01
At the table:										
In tea and coffee	1.6	1.9	11.8	16.2	15.7	25.0	0.11	0.12	0.95	0.75
On cereal	9.1	10.0	46.2	41.1	61.6	63.6	0.66	0.66	1.16	1.60
On fruits and desserts	0.1	0.1	2.8	2.3	3.8	3.6	0.01	†	0.29	0.21
For infant feeding	2.1	1.3	2.6	1.6	3.5	2.4	0.15	0.09	5.74	5.74
In food preparation	11.6	11.8	64.6	58.1	86.2	89.8	0.83	0.78	1.28	1.34
Other uses	1.3	1.1	9.9	7.0	13.2	10.8	0.09	0.08	0.89	1.09
Nonfat milk:										
All uses	100.0	100.0	8.0	8.2	100.0	100.0	0.32	0.38	4.01	4.63
As beverage	88.6	85.7	8.0	7.6	100.0	92.9	0.29	0.32	3.56	4.27
At the table:										
In tea and coffee	3.7	2.5	0.9	0.8	11.8	9.5	0.01	1.25	1.25	1.21
On cereal	3.2	5.9	1.7	2.1	20.6	26.2	0.01	0.02	0.62	1.03
On fruits and desserts	...	0.1	...	0.4	...	4.8	...	†	...	0.13
In food preparation	4.5	4.8	1.9	1.8	23.5	21.4	0.01	0.02	0.77	1.03
Other uses	...	1.0	...	0.4	...	4.8	...	†	...	1.00
Buttermilk:										
All uses	100.0	100.0	13.9	18.9	100.0	100.0	0.30	0.33	2.18	1.76
As beverage	76.5	88.2	9.7	16.0	69.5	84.5	0.23	0.29	2.39	1.84
Food preparation	22.5	11.8	7.5	7.8	54.2	41.2	0.07	0.04	0.90	0.51
Other uses	1.0	...	0.2	...	1.7	...	†	...	0.38	...

* Households using products in each specific way.
† Less than 0.005 quart.

table by the families surveyed. It was used on cereals, in tea and coffee, and less frequently on fruits and desserts. Almost one eighth of all the homogenized milk consumed was used in these ways. More of the nonfat milk was used in these ways (7 to 8 per cent) than in food preparation (5 per cent). (See table 6.)

About 10 per cent of the homogenized milk was used on cereals, over two fifths of the families using it this way. Of those who used this kind of milk, over three fifths used it on cereals. About two-thirds quart was used by all the families in the study, on the average. Those families who used homogenized milk on cereals averaged, however, 1.2 to 1.6 quarts per household per week. Only 3 to 6 per cent of all families used nonfat milk on cereals. From one fifth to one fourth of those families who used nonfat milk used it on cereals, averaging almost two-thirds to 1 quart per family. (See table 6.)

Less than 2 per cent of all the homogenized milk was used in tea and coffee, from 12 to 16 per cent of the families using it in this way. Those who used it in tea and coffee averaged three-fourths to 1 quart per week. From 3 to 4 per cent of the nonfat milk was used in tea and coffee by less than 1 per cent of the families. Those who used nonfat milk in tea and coffee averaged over 1 quart per week.

From 1 to 2 per cent of the families studied used homogenized milk in infant feeding. This use accounted for less than 2 per cent of the total used. From 7 to 10 per cent of the families fed this milk to pets or wasted it—accounting for over 1 per cent of the total.

Fluid Milk Used As A Beverage

By families

Although all kinds of milk were used as a beverage by the families surveyed, most of the beverage milk was whole milk. Whole milk accounted for 98 per cent of the fluid milk used as a beverage.

The families studied consumed, on the average, about 7 or more quarts of whole milk as a beverage during the week they were surveyed. They averaged between 2 and 3 quarts per person per week. All other forms of fluid milk averaged only 0.6 quart per household in Oakland and 0.9 quart in Los Angeles.

BEVERAGE MILK	AV. QUANTITY PER HLD.		TOTAL MILK EQUIVALENT	
	Oak. *qts.*	*L.A.* *qts.*	*Oak.* *per cent*	*L.A.* *per cent*
Whole milk	6.80	7.67	89.4	88.4
Nonfat milk	0.29	0.32	3.8	3.7
Buttermilk	0.23	0.29	3.0	3.4
Chocolate drink	0.19	0.15	2.5	1.7
Yogurt	0.01	0.07	0.1	0.8
Goat's milk	..	0.05	..	0.6
	lbs.	*lbs.*		
Half-and-half	0.03	0.03	0.2	0.2
Evaporated milk	0.07	0.08	0.8	0.9
Nonfat dry milk	0.02	0.02	0.2	0.3

From 4 to 7 per cent of the families did not use any of their fluid milk as a beverage during the week studied; from 11 to 13 per cent used less than one half in this way. About one fifth used 70 to 80 per cent of their fluid milk as a beverage; another fifth used 80 to 90 per cent in this manner.

One fourth to one third of the families used less than 5 quarts of milk as a beverage per household per week; 29 to 38 per cent used 5 to 10 quarts; less than 20 per cent used 10 to 15 quarts per week. Only 8 per cent drank 15 to 20 quarts per week.

QUARTS PER PERSON PER WEEK	HOUSEHOLDS *Oak.* *per cent*	*L.A.* *per cent*
None	7.1	4.3
Less than 1	12.0	10.9
1–1.99	24.1	18.5
2–2.99	24.3	23.8
3–3.99	14.4	20.9
4–4.99	12.0	10.5
5 and over	6.1	11.1

About one eighth of the families used less than 1 quart of fluid milk per person per week as a beverage. About half of the families in Oakland and two fifths in Los Angeles used between one and three quarts.

Families that spent larger amounts for food used larger amounts of fluid milk as a beverage than did those who spent smaller amounts. Families in Oakland spending less than $10 per week for food averaged 2.9 quarts of beverage milk per week; Los Angeles families averaged 4.6 quarts. In Oakland those families spending $40 used 14.6 quarts and in Los Angeles, 15.7 quarts. These families averaged 2.9 and 3.3 quarts per person, respectively.

In Oakland 38 per cent and in Los Angeles 21 per cent of the families who spent less than $10 per week for food did not use any milk as a beverage during the week studied. This was true of only 4 per cent of those who spent $30 or more. Of families spending less than $10 per week, 15 per cent in Oakland and 52 per cent in Los Angeles used 2 or more quarts per person per week, whereas 70 to 80 per cent of those spending $30 or more used this much.

Income of family affected somewhat, but not greatly, the use of fluid milk as a beverage. Families with less than $2,000 averaged 5.3 to 5.9 quarts per household per week, whereas those with $6,000 and over used, on the average, 7.3 to 9.4 quarts. The former group used 2.1 to 2.6 quarts per person per week, and the latter averaged 2.6 and 3.1 quarts. From one third to two fifths of those with less than $3,000 income used some beverage milk, but less than 5 quarts per family per week. From one fourth to two fifths of those with incomes $3,000 and over used over twice as much, that is, 5 to 10 quarts per week.

Families with children used an average of 11 quarts of fluid milk as a beverage per household during the week studied, or about 3 quarts per person. Families with no children averaged 4.5 quarts per household in Oakland and 5.2 quarts in Los Angeles, or 2.1 and 2.4 quarts per person, respectively. (See table 13A.)

From 45 to 52 per cent of the families with children used less than 10 quarts per household during the week. From 87 to 90 per cent of those without children used less than this amount, and 55 to 65 per cent used less than 5 quarts during the week. (See table 13A.)

Two-adult families with one child used, on the average, about 8 quarts per household as a beverage while those with three children used almost 16 quarts in this way. Families with three children averaged from one-third to one-half quart more per person during the week than did families with only one child. (See table 13A.)

By individuals

Since families, as a whole, used a high proportion of their fluid milk as a beverage, it seemed of interest to study the extent to which it was used in this way by individual family members.

Where individuals drank milk. About three fourths of all the persons one year of age and over, in the families studied, drank some milk during the week of the survey. Over half of them drank milk only at home; about one fifth drank milk away from home as well as at home; while only 1 to 2 per cent drank milk only away from home. (See table 7.)

Over half of the adults (persons 21 years and over) and half of the boys 13 to 20 years old drank milk only at home. About three fifths of the girls 13 to 20 years old and of the children 1 to 12 years old drank milk only at home during the week.

About 7 per cent of the women and twice that proportion of men drank milk away from as well as at home. No doubt the men's habit of buying lunches away from home accounted for some of the difference. About two fifths of the children 1 to 12 years old drank milk away from home and at home; the proportions increased for the age groups up to 7 to 9 years. Adolescent boys followed this practice more often than girls of the same age. Over two fifths of the boys and less than one third of the girls 13 to 20 years old drank milk away from home as well as at home.

Quantities consumed

All family members one year and over in age drank, on the average, 2.6 quarts of fluid milk per week in Oakland and 3 quarts in Los Angeles. (See table 8.)

The quantities varied greatly with the age and considerably with the sex of the family members. The largest average quantities were used by children 1 to 12 years old, this group averaging 5 quarts or more per child per week in both Oakland and Los Angeles. Within this age group, the average consumed rose with rise in age.

Adolescents (13 to 20 years) consumed the next largest quantities—from 4.5 to 5 quarts. The girls in this age group averaged less—3.5 to 4 quarts—than did the boys who consumed from 5.5 to 6 quarts. Girls in the 16 to 20 year age group averaged considerably less than those in the 13 to 15 year group. However, boys 16 to 20 years old averaged almost as much as or more than the younger boys.

Adults consumed, on the average, considerably smaller quantities of milk as a beverage than did the children or adolescents—1.6 quarts in Oakland and 2 quarts in Los Angeles. The women drank only about two-thirds as much milk as the men, averaging 1.3 quarts in Oakland and 1.6 quarts in Los Angeles during the week studied. Men averaged 2 quarts in Oakland and 2.4 quarts in Los Angeles. Average quantities consumed by both men and women tended to decrease with 10-year age intervals up to 60 years. Over that age, the average amount tended to increase slightly. (See table 8.)

On the average, family members who drank milk both away from and at home consumed 2 quarts per person more during the week studied than did those who drank milk at home only. The former group drank over 5 quarts; the latter averaged only slightly more than 3 quarts.

In practically all age and sex classes the average amounts consumed by individuals who drank milk away from home as well as at home were larger than those of persons who drank milk only at home.

The difference varied considerably with age. The children in Oakland who drank both at and away from home drank 18 per cent more, and those in Los Angeles, 14 per cent more than those who drank milk only at home. The adolescents drank about 10 per cent more in Oakland and almost 50 per cent more in Los Angeles. Women drank 68 per cent more in Oakland and 107 per cent more in Los Angeles; men drank 111 per cent more in Oakland and 32 per cent more in Los Angeles.

The few persons who drank milk only away from home averaged smaller quantities than those who drank milk only at home—in Oakland, 1.9 quarts and in Los Angeles, 1.3 quarts per person.

Average quantities of fluid milk used as a beverage by the different age and sex groups did not reveal the extent to which many individuals within a group used relatively small amounts of milk as a beverage during the week of the study.

In Oakland, 72 per cent of all the individuals in the study, excluding infants under 1 year, drank less than 4 quarts during the week of the survey, 61 per cent, less than 3 quarts, and 50 per cent, less than 2 quarts. In Los Angeles, 67 per cent drank less than 4 quarts, 54 per cent, less than 3 quarts, and 45 per cent, less than 2 quarts. The groups using less than 2 quarts included the individuals who did not drink any milk during the week of the study. (See table 14A.)

Although children from 1 to 12 years old drank, on the average, 5 quarts of milk per week in Oakland and 5.2 quarts

Table 7. Distribution of Family Members According to Their Use of Fluid Milk as a Beverage During One Week, in Oakland and Los Angeles

Family members	All family members				Family members drinking milk						Members drinking no beverage milk	
					Away from and at home		At home only		Away from home only			
	Oak.	L. A.	Oak.	L. A.	Oak.	L. A.	Oak.	L. A.	Oak.	L. A.	Oak.	L. A.
	number	number	per cent	per cent	per cent	per cent	per cent	per cent	per cent	per cent	per cent	per cent
All family members 1 year and over	1,241	1,555	100.0	100.0	19.2	20.5	52.7	56.1	1.1	2.1	27.0	21.3
Children	272	376	21.9	24.2	39.0	41.8	60.3	56.9	...	0.5	0.7	0.8
1–3	73	93	5.9	6.0	23.3	22.6	75.3	77.4	...	...	1.4	...
4–6	81	106	6.5	6.8	37.0	39.6	61.7	59.4	...	1.0	1.2	...
7–9	76	91	6.1	5.9	56.6	57.1	43.4	41.8	...	...	...	1.1
10–12	42	86	3.4	5.5	38.1	48.8	61.9	47.7	...	1.2	...	2.3
Adolescents	96	126	7.8	8.1	34.4	37.3	55.2	54.8	1.0	2.4	9.4	5.6
Girls	47	64	3.8	4.1	27.7	31.3	61.7	59.4	...	3.1	10.6	6.2
13–15	15	20	1.2	1.3	40.0	50.0	60.0	50.0	...	...	...	...
16–20	32	44	2.6	2.8	21.9	22.7	62.5	63.6	...	4.6	15.6	9.1
Boys	49	62	4.0	4.0	40.8	43.6	49.0	50.0	2.0	1.6	8.2	4.8
13–15	22	29	1.8	1.9	45.5	37.9	45.4	58.6	...	3.5	9.1	...
16–20	27	33	2.2	2.1	37.0	48.5	51.9	42.4	3.7	...	7.4	9.1
Adults	873	1,053	70.3	67.7	11.3	10.9	50.1	55.9	1.5	2.6	37.1	30.6
Women	457	551*	36.8	35.4	6.8	7.4	50.3	59.0	1.8	1.3	41.1	32.3
21–29	90	104	7.3	6.7	16.7	13.4	55.5	62.5	1.1	1.0	26.7	23.1
30–39	112	162	9.0	10.4	6.2	6.8	56.3	58.6	2.7	0.6	34.8	34.0
40–49	101	113	8.1	7.3	2.0	6.2	43.5	58.4	2.0	2.7	52.5	32.7
50–59	92	84	7.4	5.4	4.3	4.8	44.6	57.1	2.2	1.2	48.9	36.9
60–69	43	57	3.5	3.7	7.0	7.0	53.5	54.4	...	1.8	59.5	36.8
70 and over	19	30	1.5	1.9	...	3.3	47.4	66.7	...	...	52.6	30.0
Men	416	502	33.5	32.3	16.3	14.7	49.8	52.6	1.2	4.0	32.7	28.7
21–29	59	71	4.8	4.6	37.3	23.9	49.1	60.6	3.4	1.4	10.2	14.1
30–39	111	146	8.9	9.4	22.5	21.2	40.5	47.3	0.9	...	36.1	31.5
40–49	96	114	7.7	7.4	11.4	6.1	49.0	57.0	1.0	9.7	38.5	27.2
50–59	78	86	6.3	5.5	7.7	10.5	50.0	48.8	1.3	4.6	41.0	36.1
60–69	50	55	4.0	3.5	4.0	12.7	68.0	49.1	...	7.3	28.0	30.9
70 and over	22	30	1.8	1.9	9.1	10.0	59.1	60.0	...	...	31.8	30.0

* Age of 1 woman unknown.

Table 8. Average Quantities of Fluid Milk Used as a Beverage by Family Members During One Week, in Oakland and Los Angeles

Family members	Average quantities per family member									
	All family members		All family members using		Away from and at home		At home only		Away from home only	
	Oak.	L. A.	Oak.	L. A.	Oak.	L. A.	Oak.	L. A.	Oak.	L. A.
	qts.	qts.	qts.	qts.	qts.	qts.	qts.	qts.	qts.	qts.
All family members 1 yr. and over	2.60	2.99	3.56	3.81	5.09	5.33	3.04	3.34	1.89	1.35
Children	5.04	5.19	5.08	5.24	5.60	5.67	4.74	4.96	...	0.88
1–3	4.54	5.01	4.61	5.01	5.60	4.82	4.30	5.07	...	...
4–6	4.86	5.00	4.92	5.00	5.21	5.54	4.75	4.70	...	0.50
7–9	5.41	5.62	5.41	5.68	5.57	6.24	5.20	4.91	...	...
10–12	5.59	5.19	5.59	5.31	6.40	5.51	5.09	5.22	...	1.25
Adolescents	4.52	5.06	4.99	5.40	5.28	6.83	4.81	4.58	5.00	0.50
Girls	3.51	4.12	3.92	4.39	4.48	5.85	3.68	3.83	...	0.50
13–15	4.77	5.35	4.77	5.35	4.44	5.76	4.98	4.95	...	...
16–20	2.92	3.56	3.46	3.92	4.51	5.95	3.09	3.43	...	0.50
Boys	5.50	6.03	5.98	6.34	5.81	7.55	6.17	5.49	5.00	...
13–15	5.60	5.79	6.16	6.00	6.32	6.49	6.00	5.68	...	...
16–20	5.41	6.24	5.84	6.87	5.30	8.27	6.29	5.27	5.00	...
Adults	1.63	1.96	2.58	2.82	4.48	4.27	2.18	2.60	1.65	1.45
Women	1.28	1.59	2.17	2.35	3.42	4.38	2.04	2.12	1.22	1.21
21–29	1.99	1.95	2.71	2.53	3.77	3.98	2.43	2.24	0.75	1.25
30–39	1.34	1.76	2.06	2.67	3.64	4.97	1.93	2.42	1.08	0.50
40–49	0.93	1.36	1.95	2.02	2.13	5.02	1.94	1.72	2.00	1.58
50–59	0.89	1.31	1.75	2.08	2.66	4.91	1.70	1.87	0.88	0.75
60–69	1.44	1.39	2.38	2.21	3.05	3.25	2.29	2.10	...	1.25
70 and over	0.89	1.54	1.89	2.20	...	1.55	1.89	2.23	...	...
Men	2.01	2.36	2.98	3.31	4.96	4.21	2.35	3.19	2.35	1.53
21–29	3.70	3.72	4.12	4.33	5.75	4.92	3.00	4.18	2.25	0.75
30–39	1.94	2.36	3.03	3.44	5.01	4.28	1.89	3.07	5.00	...
40–49	1.70	1.93	2.76	2.65	3.77	4.05	2.55	2.75	1.75	1.17
50–59	1.47	1.92	2.50	3.01	4.78	3.71	2.20	2.95	0.50	2.00
60–69	1.65	2.09	2.30	3.03	3.75	2.81	2.21	3.20	...	2.25
70 and over	1.86	2.54	2.73	3.63	3.88	4.46	2.55	3.49	...	...

in Los Angeles, almost half of these children in Oakland and 42 per cent in Los Angeles drank less than 5 quarts. Over one third of them in Oakland and over one fourth in Los Angeles drank less than 4 quarts per week. About one sixth of the children in Oakland and one eighth in Los Angeles drank less than 3 quarts.

As age increased, the proportions of the various groups drinking smaller quantities of milk became larger. Over half of the girls 13 to 20 years drank less than 4 quarts, while 45 per cent in Oakland and 28 per cent in Los Angeles drank less than 3 quarts.

In Oakland 87 per cent and in Los Angeles 84 per cent of the adults drank less than 4 quarts, 78 per cent in Oakland and 73 per cent in Los Angeles drank less than 3 quarts, 68 per cent in Oakland and 63 per cent in Los Angeles drank less than 2 quarts. From 70 to 74 per cent of the adult women drank less than 2 quarts. From 66 to 71 per cent of the men drank less than 3 quarts and 55 to 62 per cent of them drank less than 2 quarts. (See table 14A.)

Persons who drank no milk

A significant fact regarding the consumption of fluid milk as a beverage by the members of the families in this study is that almost one fourth—27 per cent in Oakland, 21 per cent in Los Angeles—of those one year of age or older did not drink any milk of any kind, either at or away from home, during the week studied. (See table 7.)

As in the case of average consumption, the failure to drink milk varied with age and sex of the family members. Less than 1 per cent of the children 12 years or less drank no milk. However, over 9 per cent of the adolescents in Oakland and nearly 5 per cent in Los Angeles were in this class. More girls than boys 13 to 20 years did not drink any milk.

About one third of the adults (21 years and over) were in the non-milk drinking class, with women in larger proportions than men. In Oakland, 40 per cent of the women and 33 per cent of the men did not drink milk. In Los Angeles, 32 per cent of the women and 29 per cent of the men were in this class.

The proportions of women and of men 21 to 29 years of age, inclusive, who did not drink milk were very much lower than in other adult age groups. Almost 60 per cent of the women in Oakland who were 60 to 69 years reported that they did not drink any milk during the week studied.

The effect of the large proportion of non-milk drinkers in the families studied is observable in the average amounts of milk consumed. In Oakland, the persons who drank milk averaged nearly a quart more per week than did all the individuals in the study, including the non-milk drinkers. Those drinking milk averaged 3.6 quarts per person, and all individuals in Oakland averaged only 2.6 quarts. In Los Angeles, the corresponding figures were 3.8 quarts and 3 quarts. (See table 8.)

The reasons given by adults for not drinking milk were studied in the summer and winter surveys in Sacramento. The reasons for drinking milk were also studied in the winter survey. (See p. 68.)

Half-and-Half

Half-and-half was used by 28 per cent of the families in Oakland during the week studied and by 38 per cent in Los Angeles. It supplied about 2 per cent of the total milk equivalent for all dairy products, and accounted for 4 and 5 per cent, respectively, of the total expense in the two cities. (See tables 11A, 12A.)

Average quantities consumed by all families during the week were 0.6 pound in Oakland and 0.9 pound in Los Angeles, or 0.2 pound and 0.3 pound per person, respectively. Families who used half-and-half averaged 2 to 2.3 pounds per family during the week.

The average amounts spent per household for half-and-half were 14 cents per week in Oakland and 21 cents in Los Angeles, or 5 and 7 cents per person, respectively.

Relation to weekly food expense

Among families spending less than $40 a week for food, those with the higher food expenditures used more and spent more for half-and-half than those with lower food expense. The usage and expense increased consistently from one food expense class to another.

Almost one half of the families who spent $30 to $39 per week for food used half-and-half. The proportions in other food expense classes varied from 17 to 46 per cent.

The average quantities used and the average expense per household of the families who spent $30 to $39 for food were 4 to 7 times as high as those of the families who spent less than $10. Average quantities and expense per person were three times as large. Families spending $30 to $39 for food used an average of 0.3 pound in Oakland and 0.38 pound in Los Angeles, while those spending less than $10 averaged only 0.10 and 0.13 pound, respectively. The former spent 8 and 9 cents, respectively, for half-and-half, but the latter spent only 3 cents. Average quantities used and expense per person of the families who spent $40 or more for food were quite similar to families spending $10 to $40.

Relation to annual family income

The proportions of families who used half-and-half during the week surveyed were considerably higher among those with annual family incomes of $6,000 and over than among those with less than $2,000. About one half of the former group but only about one fifth of the latter used half-and-half.

In both Oakland and Los Angeles, families with the higher incomes, for the most part, used larger quantities and spent more per household and per person than those with smaller incomes. In Oakland, however, families with $3,000 to $3,999 averaged considerably less than did those with lower incomes.

Families with $6,000 and over used on the average 0.87 pound in Oakland and 1.18 pounds in Los Angeles per week, but those with $2,000 or less used only 0.47 and 0.59 pound, respectively. Average expense was also about twice as high per household in the group with the high income, that is, 21 and 29 cents as compared with 12 and 14 cents. Average quantity and expense per person were about 50 per cent higher in the higher income group.

When families were classified according to income per person, from 11 to 23 per cent of those with less than $1,000 per person used half-and-half and from two to three fifths of those with $3,000 and over per person used it. Los Angeles families with incomes of $1,000 or more used two to three times as much half-and-half as those with less than this amount. For example, families with $2,000 to $2,999 averaged 0.87 pound per household and 0.40 pound per person, while those with incomes of $500 to $999 used 0.44 pound per household and 0.10 pound per person. The former group spent 20 cents per household and 9 cents per person while the latter averaged 10 cents per household and 3 cents per person.

In Oakland, families with the higher incomes per person tended to consume more half-and-half than those with less income, but the differences were not so pronounced as among the Los Angeles families.

Relation to number of persons in the family

Families with three or four persons averaged larger quantities of half-and-half and averaged higher expenditures per household than families with only two members. However, families with two or three persons averaged higher quantities and higher expense per person than families with four persons. For example, families in Los Angeles with two, three, and four persons averaged 0.83, 0.98, and 1.10 pounds per household per week, respectively. They spent 19, 22, and 26 cents. However, their consumption per person averaged 0.43, 0.34, and 0.28 pound, and their expense, 10, 8, and 7 cents, respectively.

Relation to children in the family

Los Angeles families with children on the average used less half-and-half and spent less for it than families without children. In Oakland, however, families with children averaged slightly higher quantities and expense per household, but less per person, than families without children. (See table 15A.)

Average quantities used per person by families without children in Oakland were 0.25 pound and in Los Angeles 0.46 pound. Those with children averaged 0.17 pound and 0.22 pound, respectively. The corresponding average expenditures were 4 and 5 cents per person for families with children and 6 and 10 cents for those without children.

Families with children, who had the higher incomes, tended to consume more than families with the lower incomes. However, there was less variation in consumption from one income level to another among families without children.

The proportion of milk equivalent supplied by half-and-half in families without children was about double that in families with children. The proportion of the total expense for dairy products which was used for half-and-half was also considerably more in families without children.

When consumption was compared in two-adult families with one, two, three, or no children, it was found that the lowest average quantities and lowest expense per person were in families with three children. In Oakland, for example, families with two children used 0.15 pound per person and those with three children used only 0.08 pound. In Los Angeles the former used 0.27 pound and the latter 0.15 pound per person. (See table 16A.)

The average quantity used and expense per household were lowest in Oakland families with three children, but in Los Angeles the amount used and expense in households with three children were about the same as in families with one child.

The proportion of milk equivalent and the proportion of total expense used for dairy products accounted for by half-and-half were lowest in families with one child.

Uses

Almost nine tenths of the total half-and-half used by the families studied during the week of the survey was used at the table, most commonly in tea and coffee (44 to 46 per cent of the total). From about 20 to 30 per cent of the families studied (two thirds to three fourths of those who used it) used half-and-half in tea and coffee.

Use on cereals was the next most common use of half-and-half, 37 per cent of the total having been used in this way by 15 to 21 per cent of all families (54 to 80 per cent of those using it).

From 3 to 6 per cent of the half-and-half was used at the table on fruits and desserts. About 7 per cent was used in food preparation, and 4 to 5 per cent was used as a beverage.

Cream

Only 25 to 31 per cent of the families used any kind of cream during the week studied. The average amount per family was about 0.20 to 0.25 pound. Families spent from 10 to 12 cents per household and 4 cents per person for cream. (See tables 11A, 12A.)

From 11 to 17 per cent of the families used whipping cream while only 6 to 7 per cent used table cream. Oakland families used over twice as much whipping cream as table cream; Los Angeles families, on the other hand, used about the same amounts of each.

Relation to weekly food expense

Families who spent larger amounts for food used more cream and had higher expenditures per household, on the average, than did families who spent the lower amounts. For example, families who spent $40 or more for food during the week averaged 0.36 pound of cream in Oakland and 0.42 pound in Los Angeles, while those who spent $10 to $19 for food used 0.12 and 0.21 pound, respectively. Expenditures in the two food expense classes were 21 and 7 cents in Oakland, and 18 and 9 cents in Los Angeles. Quantities used and expense per person did not vary much from one food expense class to another.

Relation to annual family income

Families in the higher income groups showed higher consumption of cream than did those in the lower income groups. Of the families earning less than $2,000, only 5.4 per cent in Oakland and 23.8 per cent in Los Angeles used cream during the week. Of those earning $6,000 and over, 36.7 per cent and 34.1 per cent, respectively, used cream. The average quantities used per household by those with less than $2,000 were 0.02 and 0.18 pound; those used by the families with $6,000 and over were 0.33 pound in Oakland and 0.35 pound in Los Angeles.

Expense for cream increased from 1 cent to 17 cents per household in the two income classes in Oakland, and from 8 to 15 cents in Los Angeles.

Average quantities used and average expense per person were also considerably higher in the higher income groups than in the lower ones in both cities.

When families were classified according to income per person, those with the larger incomes used more and spent more per household and per person for cream than those with smaller incomes.

Relation to children in the family

Families without children averaged about the same amounts of cream and spent about the same per household as did those with children. However, the average quantity used and the amount spent per person were considerably higher in the families without children. The proportion of milk equivalent provided by cream and the proportion of the total expense for dairy products which was used for cream were much higher in families without children. (See table 15A.)

Although there was a tendency for the average quantities and expense per household and per person to be higher in families in the higher income groups than in those with less income, these differences were more pronounced in families without children than in those with children.

Generally, less cream was used and less money spent for it in two-adult families with from one to three children than in those with two adults only. Cream was much less important, proportionally, in the total milk equivalent supplied by dairy products and in total expense in the families with children. (See table 16A.)

Uses

From 85 to 89 per cent of the cream was used at the table. About 10 per cent in Oakland and 15 per cent in Los Angeles was used in food preparation. (See table 9.)

From two fifths to three fifths of the cream was used in tea and coffee; about one fifth on cereal. Use on fruits and desserts accounted for about 9 per cent in Oakland and 20 per cent in Los Angeles.

About 60 per cent of the whipping cream was used by families in Oakland in food preparation, while Los Angeles

Table 9. Uses of Half-and-Half, Cream, and Evaporated Milk, During One Week, by Households in Oakland and Los Angeles

Uses	Total used in each way		Per cent of households using				Average quantities per household			
			All households		Households using		All households		Households using	
	Oak.	L. A.	Oak.	L. A.	Oak.	L. A.	Oak.	L. A.	Oak.	L. A.
	per cent	per cent					lbs.	lbs.	lbs.	lbs.
Half-and-half:										
Total	100.0	100.0	28.1	32.2	100.0	100.0	0.59	0.89	2.09	2.32
As beverage	5.2	3.8	1.9	1.8	6.7	4.6	0.03	0.03	1.63	1.94
At the table:										
In tea and coffee	46.4	44.0	18.9	29.8	67.2	78.1	0.27	0.39	1.44	1.31
On cereal	37.6	37.9	15.1	21.1	53.8	80.0	0.22	0.34	1.45	1.60
On fruits and desserts	2.8	6.6	3.3	8.6	11.8	22.4	0.02	0.03	0.50	0.68
For infant feeding	0.4	...	0.2	...	0.8	...	*	...	0.95	...
In food preparation	6.7	7.1	9.0	11.5	31.9	30.1	0.03	0.06	0.43	0.55
Other uses	0.9	0.6	0.5	0.6	1.7	1.5	*	0.01	0.53	0.89
Cream:										
Total	100.0	100.0	6.1	7.2	100.0	100.0	0.05	0.07	0.83	1.04
At the table:										
In tea and coffee	61.8	42.6	4.7	4.3	76.9	59.5	0.03	0.03	0.67	0.74
On cereal	18.6	21.7	1.4	1.9	23.1	27.0	0.01	0.02	0.67	0.83
On fruits and desserts	8.6	20.4	0.9	2.7	15.4	37.8	*	0.01	0.47	0.56
In food preparation	10.5	15.3	1.4	2.3	23.1	32.4	*	0.01	0.38	0.49
Other uses	0.5	...	0.2	...	3.8	...	*	...	0.11	...
Evaporated milk:										
Total	100.0	100.0	46.2	37.0	100.0	100.0	1.05	0.86	2.27	2.33
As beverage	6.2	9.8	2.1	3.3	4.6	8.9	0.07	0.08	3.07	2.55
At the table:										
In tea and coffee	31.7	30.8	29.5	23.0	63.8	62.1	0.34	0.27	1.13	1.16
On cereal	6.6	6.9	5.2	3.7	11.2	10.0	0.07	0.06	1.35	1.60
On fruits and desserts	0.6	0.4	1.7	0.6	3.6	1.6	0.01	*	0.37	0.58
For infant feeding	22.3	23.9	3.1	3.9	6.6	10.5	0.24	0.21	7.66	5.30
In food preparation	19.1	20.4	22.2	17.2	48.0	46.3	0.20	0.17	0.91	1.02
Other uses	12.5	7.8	4.5	5.3	9.7	14.2	0.12	0.07	2.77	1.28

* Less than 0.005 pound.

families used about 35 per cent in this way. The Oakland families used 27 per cent and the Los Angeles families 61 per cent of their whipping cream on desserts.

Evaporated Milk

Evaporated milk was used by 46 per cent of the Oakland families and 37 per cent of the Los Angeles families during the week studied. The families who used evaporated milk averaged considerably larger quantities—2.3 pounds per household and 0.7 pound per person—than the average of all families in the survey. The latter used only about 1 pound per household, and 0.33 pound per person. (See tables 11A, 12A.)

Evaporated milk constituted about 7 per cent of the total milk equivalent of all dairy products consumed in Oakland and 5 per cent in Los Angeles. Only 4 per cent of the total expense for dairy products was for evaporated milk in Oakland and 3 per cent in Los Angeles. The average expenditures were 16 and 13 cents per household per week, and 5 and 4 cents per person in Oakland and Los Angeles, respectively. (See table 11A.)

Relation to weekly food expense

In Oakland 69 per cent of the families spending less than $10 per week and 62 per cent of those spending $40 or more used evaporated milk during the week studied. From 40 to 45 per cent of those spending from $10 to $40 used it. In Los Angeles the highest proportion of families using evaporated milk was in the group spending from $10 to $19.99 per week for food. Forty-two per cent of these families used it, but only 16 per cent of those spending $30 to $39.99 used it. From 36 to 39 per cent of families in other food expense classes used it during the week.

The average quantities used per household and per person followed much the same pattern.

WEEKLY FOOD EXPENSE	AV. QUANTITIES USED PER WEEK			
	Per hld.		*Per person*	
	Oak.	*L.A.*	*Oak.*	*L.A.*
	lbs.	*lbs.*	*lbs.*	*lbs.*
Under $10	1.46	0.64	0.62	0.34
$10–19.99	0.80	1.10	0.34	0.46
$20–29.99	0.99	0.83	0.32	0.26
$30–39.99	1.15	0.36	0.30	0.09
$40 and over.........	3.11	0.78	0.62	0.16

In Oakland both the families spending less than $10 per week for food and those spending $40 and over spent 9 cents per person, per week, for evaporated milk. In Los Angeles the families spending $10 to $19.99 for food spent 17 cents per household and 7 cents per person for evaporated milk, while those who spent from $30 to 39.99 for food averaged 6 cents per household and 1 cent per person for this dairy product.

The proportion of total milk equivalent for all dairy products provided by evaporated milk was larger for the lowest and highest food expense levels than for the groups spending from $10 to $40. The proportion of total expense showed the same pattern.

Relation to annual family income

The higher the annual family income, the fewer the families using evaporated milk. In Oakland, 54 per cent of the families with incomes less than $2,000 per year used evaporated milk during the week; 40 per cent of those with incomes of $6,000 and over used it. Corresponding figures for Los Angeles were 48 and 23 per cent, respectively.

The average quantities used per household and per person tended to be lower where family income was higher, with some exceptions.

The largest average quantities per household were used by Oakland families with incomes between $3,000 and $3,999 and by Los Angeles families with incomes between $2,000 and $2,999. Significantly more—30 to 40 per cent of the total amount—was used for infant feeding in these two groups than in any of the other income classes in either city.

Almost half of the families whose income per person was less than $1,000 used evaporated milk in both cities. In Los Angeles, only one fourth of the families whose income per person exceeded $3,000 used it. Proportions of families in Oakland using evaporated milk decreased through the $2,000–$2,999 income level and then rose.

ANNUAL FAMILY INCOME	AV. QUANTITIES USED PER WEEK			
	Per hld.		*Per person*	
	Oak.	*L.A.*	*Oak.*	*L.A.*
	lbs.	*lbs.*	*lbs.*	*lbs.*
Under $2,000	1.28	0.87	0.51	0.39
$2,000–2,999	0.89	1.61	0.31	0.59
$3,000–3,999	1.26	1.03	0.39	0.32
$4,000–5,999	0.87	0.71	0.30	0.23
$6,000 and over	0.60	0.45	0.22	0.15

In Oakland, as annual income per person ranged upward from $500 to $3,000 and over, the average quantities of evaporated milk used per household ranged downward from 2.48 pounds to 0.69 pound, and the average expense from 35 cents to 10 cents. Los Angeles families with annual income per person between $500 and $999 used the largest quantity, 1.51 pounds, and spent the most, 24 cents. Those with incomes per person between $2,000 and $2,999 used the smallest average quantity, 0.45 pound, and spent the least, 7 cents per household.

Relation to number of persons in the family

More families with three persons (49 per cent in Oakland, 38 per cent in Los Angeles) used evaporated milk during the week studied than did those with either two or four persons. These families also averaged higher quantities per household and per person.

The three-person families also averaged the highest expense per household and per person—18 cents and 15 cents per household and 6 cents and 5 cents per person in Oakland and Los Angeles, respectively.

NUMBER OF PERSONS	AV. QUANTITIES USED PER WEEK			
	Per hld.		*Per person*	
	Oak.	*L.A.*	*Oak.*	*L.A.*
	lbs.	*lbs.*	*lbs.*	*lbs.*
Two	0.55	0.61	0.29	0.32
Three	1.20	1.02	0.42	0.35
Four	0.97	0.72	0.25	0.18

Relation to children in family

Families who had no children under 16 years used less and spent less per household, on the average, for evaporated milk than did families with children under this age. However, the average quantity and expense per person did not vary much between the two groups. Families in Oakland who did not have children used less and spent less per person than families with children, but the opposite was true in Los Angeles. (See table 15A.)

In the two-adult households the consumption of evaporated milk varied somewhat in the two cities. In Oakland the average quantity and expense per household were increasingly higher in families with from one to three children. In Los Angeles the families with one and three children spent more per household and per person than did families with two children. (See table 16A.)

In Oakland families with three children, evaporated milk accounted for a higher proportion of milk equivalent and of total expense than in other two-adult households. In Los Angeles these proportions were highest in families with only one child.

Other relationships

From 15 to 18 per cent of the families eating 30 to 40 per cent of their meals away from home used evaporated milk. In addition, the average quantity and expense per household and per person tended to be lower when families ate larger proportions of their meals away from home.

More families of retired or unemployed persons, those of craftsmen and operatives, and those with miscellaneous occupations used evaporated milk during the week studied than families of professional and managerial workers and of clerks and salesmen. Generally, also, the former groups used higher average quantities and spent more for evaporated milk than did the latter groups.

Families of nonemployed homemakers used larger average quantities, both per household and per person, than families in which the homemaker was employed. The former also spent more for evaporated milk during the week studied.

Evaporated milk represented a more important element of dairy products consumption in the nonwhite than in the white families. More of the former used evaporated milk during the week studied; they used it in larger quantities per household and per person, and spent more for it.

Uses

Three of the ways in which evaporated milk was used were quite important. Use in tea and coffee accounted for about 31 per cent of all the evaporated milk used; infant feeding, for almost one fourth; and food preparation, for about one fifth. The remainder was used as a beverage (6 to 10 per cent), on cereal (7 per cent), and in miscellaneous ways, with less than 1 per cent used on fruits and desserts at the table. (See table 9.)

Evaporated milk was used in tea and coffee by 30 per cent of the families in Oakland and by 23 per cent in Los Angeles. It was used in food preparation by 22 per cent in Oakland and by 17 per cent in Los Angeles. Fewer than 6 per cent of the families used evaporated milk in any other way.

All the families in the study used, on the average, 0.3 pound in tea and coffee in the week studied, and about 0.2 pound each for infant feeding and food preparation.

Of the families who used evaporated milk during the week studied, over 60 per cent used it in tea and coffee and almost half used it in food preparation. Less than 15 per cent used it in any of the other ways.

Only 3 per cent of the families used evaporated milk in infant feeding, these families averaging 7.7 pounds in Oakland and 5.3 pounds in Los Angeles.

Families with the higher incomes used less evaporated milk in each category than did families with smaller incomes, with the exception of infant feeding, which did not vary with income.

Condensed Milk, Dry Milk, and Infant Formula

Less than 0.1 pound of condensed and dry milk and of canned and dry infant formula was used per week by all the families in the study. Only from 4 to 6 per cent of the families used any of these products. (See tables 11A, 12A.)

Canned infant formula accounted for about 85 per cent of the total of these products used in Oakland and about 40 per cent in Los Angeles. Less than 1 per cent of the families used canned infant formula, but those who did averaged over 7 pounds per household in Oakland and 5.5 pounds in Los Angeles. Dry infant formula was used by a few families. Those who used it in Los Angeles averaged 1.4 pounds per household during the week studied.

Condensed milk was used by 1 per cent or less of the families. Those who used it averaged about 1 pound per household per week.

Nonfat dry milk was used by 1.7 per cent of families in Oakland and by 3 per cent in Los Angeles. These families averaged about 0.33 pound per household in each city during the week studied.

Cottage Cheese

Cottage cheese was used by three fifths to two thirds of the families during the week studied. All the families in the study averaged 0.7 to 0.9 pound per household or 0.25 to 0.33 pound per person. Families using cottage cheese averaged from 1.2 to 1.4 pounds per household. (See table 12A.)

About 6 per cent of the families' total expenditure for dairy products was used for cottage cheese. In terms of milk equivalent, cottage cheese accounted for about 9 per cent of the total. (See table 11A.)

Relation to weekly food expense

More cottage cheese was used by families who spent larger amounts for food; more was spent for it; and more was used per household.

WEEKLY FOOD EXPENSE	AV. QUANTITIES USED PER WEEK			
	Per hld.		*Per person*	
	Oak. *lbs.*	*L.A.* *lbs.*	*Oak.* *lbs.*	*L.A.* *lbs.*
Under $10	0.42	0.66	0.18	0.35
$10–19.99	0.48	0.75	0.21	0.31
$20–29.99	0.76	1.00	0.25	0.31
$30–39.99	1.01	1.35	0.26	0.34
$40 and over........	1.35	1.27	0.27	0.27

Families who spent less than $10 per week for food spent 13 cents for cottage cheese in Oakland and 18 cents in Los Angeles. Those spending $40 and over for food spent 39 cents for cottage cheese in Oakland and 37 cents in Los Angeles.

The average quantities used and average expense per person varied much less than did household quantities and expense. In Oakland, average quantities used per person increased from 0.18 to 0.27 pound and expense increased from 5 to 8 cents per person as weekly food expense rose from lowest to highest amounts. On the other hand, the quantities per person used in Los Angeles decreased from 0.35 to 0.27 pound and expense fell from 10 to 8 cents as weekly food expense rose from lowest to highest amounts.

Relation to annual family income

A rise in the size of total family income showed a rise in the proportion of families at each level who used cottage cheese. In families with less than $2,000, 40 to 50 per cent used cottage cheese, whereas over three fourths of the families with incomes of $6,000 or more used it.

Families with the higher incomes used, on the average, more cottage cheese per household and per person than those with the lower incomes.

ANNUAL FAMILY INCOME	AV. QUANTITIES USED PER WEEK			
	Per hld.		*Per person*	
	Oak. *lbs.*	*L.A.* *lbs.*	*Oak.* *lbs.*	*L.A.* *lbs.*
Under 2,000	0.37	0.55	0.15	0.25
$2,000–2,999	0.64	0.85	0.22	0.31
$3,000–3,999	0.54	0.78	0.17	0.24
$4,000–5,999	0.83	1.12	0.28	0.36
$6,000 and over.....	0.90	1.12	0.33	0.37

The average amount spent for cottage cheese increased in Oakland from 11 to 27 cents and in Los Angeles from 15 to 32 cents as family income level rose from less than $2,000 to $6,000 and over. Average expense per person increased from 4 to 10 cents in Oakland and from 7 to 11 cents in Los Angeles.

When families were classified on the basis of income per person, the proportion of Oakland families using cottage cheese increased from 35 per cent (incomes of less than $500) to 75 per cent (incomes of $3,000 and over). In Los Angeles the proportions were 56 and 80 per cent in the respective income groups. The average quantity used per household increased from 0.3 to 0.86 pound in Oakland and from 0.74 to 1.16 pounds in Los Angeles. The average quantity used per person increased from 0.07 to 0.42 pound in Oakland and from 0.24 to 0.61 pound in Los Angeles.

The average expenditure for cottage cheese also rose from one income level to another. Expense per household in Oakland ranged from 9 to 25 cents and in Los Angeles from 20 to 32 cents, while expense per person ranged from 2 to 12 cents in Oakland and from 6 to 17 cents in Los Angeles from the lowest to the highest income level.

Relation to number of persons in the family

Although the average quantity used per household gradually increased from that in families with two persons to that in families with four persons, the quantities used per person decreased. For example, in Oakland, two-person families averaged 0.30 pound per person and four-person families averaged 0.23 pound. In Los Angeles, two-person families consumed 0.43 pound per person and four-person families used 0.28 pound per person.

Average expense per household increased and average expense per person decreased from two-person families to four-person families.

NUMBER OF PERSONS	AV. EXPENSE PER WEEK			
	Per hld.		*Per person*	
	Oak.	*L.A.*	*Oak.*	*L.A.*
Two	$.18	$.23	$.09	$.12
Three	.23	.25	.08	.09
Four	.26	.30	.07	.08

Relation to children in family

Families without children averaged almost as much cottage cheese per household and spent about as much for it as families who had children. The average amount used and the average expense per person were about 50 per cent higher in families without children. Cottage cheese also accounted for a higher proportion of the total milk equivalent consumed and of total expense for dairy products in families without children than in other families. (See table 15A.)

In the two-adult families the quantity used and expense per household were somewhat higher with larger numbers of children. However, the average quantity used per person and the average expense per person were lower in families with two and three children than in families with one child or with no children. (See table 16A.)

In terms of proportions of total milk equivalent and total expense, cottage cheese was less important in families with three children than in other two-adult families in Oakland. In Los Angeles it was least important in families with two children. The proportions of both milk equivalent and expense were highest in two-adult families with no children in both cities. (See table 16A.)

Uses

Practically all the cottage cheese (about 97 per cent) was served as such or used in salads. Only about 2 per cent was used in food preparation and 1 per cent in miscellaneous ways. (See table 10.)

Almost half of the cottage cheese was served as such by the Oakland families, and over 55 per cent by the Los Angeles families. The Oakland families used, on the average, 0.33 pound per week, the Los Angeles families averaged over 0.50 pound. Over 31 per cent of the Oakland families and 45 per cent of the Los Angeles families served cottage cheese as such, these families averaging 1.1 pounds per household during the week studied.

The Oakland families used 49 per cent and the Los Angeles families 41 per cent of their cottage cheese in salads, an average of more than one-third pound per household. From 37 to 38 per cent of the families used cottage cheese in salads, averaging from 0.9 to 1.0 pound per household per week.

American Cheddar Cheese

Cheddar cheese was used by more families than was any other major dairy product with the exception of fluid milk. Approximately two thirds of the families used Cheddar during the week studied. The average consumption per family, based on the total number of families in the study, was 0.4 to 0.5 pound, at a cost of 27 to 32 cents. The Cheddar cheese used by all the families studied in Oakland and Los Angeles represented roughly 7 per cent of the expense for dairy products and 9 per cent of the total milk equivalent of all dairy products used. Expense for Cheddar cheese accounted for 1.2 to 1.5 per cent of the average weekly food expense for all families. (See tables 11A, 12A.)

As in the case of other dairy products, weekly food expense, income, and number of persons in the family were the most important factors influencing the consumption of Cheddar cheese.

Relation to weekly food expense

Proportions of families who used Cheddar cheese during the week studied were considerably higher in the higher food expense classes than in the groups spending less for food. Of those spending less than $10 per week, only 31 per cent in Oakland and 46 per cent in Los Angeles used Cheddar cheese. However, of those spending $40 or more for food, over 75 per cent in both cities used this cheese.

The average quantities used per household and per person were higher among families who spent the larger amounts for food.

WEEKLY FOOD EXPENSE	AV. QUANTITIES USED PER WEEK			
	Per hld.		*Per person*	
	Oak. *lbs.*	*L.A.* *lbs.*	*Oak.* *lbs.*	*L.A.* *lbs.*
Under $10	0.23	0.17	0.10	0.09
$10–19.99	0.31	0.41	0.13	0.17
$20–29.99	0.42	0.53	0.14	0.17
$30–39.99	0.63	0.70	0.16	0.18
$40 and over........	0.58	0.80	0.12	0.17

The average expense per household and per person for Cheddar cheese also increased from one food expense class to another. Families spending less than $10 per week for food spent only 20 cents per household in Oakland and 14 cents in Los Angeles, while those spending $30 to $40 spent 43 and 55 cents, respectively, the latter group having the highest expense for Cheddar cheese both per household and per person.

Relation to annual family income

Cheddar cheese was used by more families in the higher income groups than in the lower ones. About 40 per cent of the families in Oakland and 55 per cent of those in Los Angeles who had incomes under $2,000 used it, while about three fourths of those with annual family incomes of $4,000 to $6,000 used it.

The average quantities per household and per person increased with income up to the $4,000 to $6,000 level and then declined.

ANNUAL FAMILY INCOME	AV. QUANTITIES USED PER WEEK			
	Per hld.		*Per person*	
	Oak. *lbs.*	*L.A.* *lbs.*	*Oak.* *lbs.*	*L.A.* *lbs.*
Under $2,000	0.21	0.33	0.09	0.15
$2,000–2,999	0.33	0.47	0.11	0.17
$3,000–3,999	0.37	0.51	0.18	0.18
$4,000–5,999	0.52	0.55	0.18	0.18
$6,000 and over.....	0.37	0.52	0.13	0.17

Average expense per household followed much the same pattern with variation in family income as that of the average quantities used. This expense varied from 13 cents (Oakland) and 22 cents (Los Angeles) in the lowest income group to 35 cents (Oakland) in the $4,000 to $6,000 income group and 36 cents (Los Angeles) in the $3,000 to $4,000 group. Average expense per person varied from 5 to 12 cents in Oakland and from only 10 to 11 cents in Los Angeles.

Families with incomes between $500 and $1,500 per person used the highest average quantities per household, 0.45 and 0.47 in Oakland, and 0.57 and 0.59 pound in Los Angeles. In the income levels above $1,500, the average quantities used declined to 0.29 pound in Oakland and 0.28 pound in Los Angeles. Average expense per household was also highest in the income classes between $500 and $1,500 per person. The average quantity used per person varied from 0.05 to 0.15 pound in Oakland and from 0.12 to 0.21 pound in Los Angeles, while expense varied from 4 to 10 cents and from 8 to 14 cents in the respective areas.

Relation to number of persons in the family

The average quantities used and average expense per household for Cheddar cheese increased consistently from two-person to four-person families.

NUMBER OF PERSONS	AV. QUANTITIES USED PER WEEK			
	Per hld.		*Per person*	
	Oak. *lbs.*	*L.A.* *lbs.*	*Oak.* *lbs.*	*L.A.* *lbs.*
Two	0.28	0.33	0.15	0.17
Three	0.38	0.55	0.13	0.19
Four	0.55	0.61	0.14	0.16

The average expense for American Cheddar rose from 21 to 35 cents in Oakland and from 23 to 45 cents in Los Angeles with increase in number of persons.

Although the average amounts used and expense per person varied little with size of family, they were lower in the four-person families than in those with two persons. Four-person families averaged 9 cents expense per person in Oakland and 11 cents in Los Angeles. Two-person families averaged 11 and 12 cents, respectively.

Relation to children in family

Families with children used, on the average, one half to almost two thirds more Cheddar cheese per household than did those without children. The latter averaged 0.3 and 0.4 pound per household, while those with children averaged 0.5 and 0.6 pound in Oakland and Los Angeles, respectively. The average per person, however, was slightly smaller in the families with children than in those without. In Oakland those with children used an average of 0.13 pound per person, those without children, 0.14 pound; in Los Angeles the former used 0.16 and the latter 0.18 pound per person. (See table 15A.)

The average expense per household was also higher in families with children. On the other hand, the average expense per person was higher in families without children. The proportion of total milk equivalent provided by Cheddar cheese and the proportion of total expense used for it were also higher in families without children.

The average quantity of Cheddar cheese used by two-adult families in Oakland varied from 0.28 pound in families with no children to 0.58 pound in those with three. In Los Angeles the average varied from 0.33 pound in the families with no children to 0.58 pound in those with two, and dropped to 0.49 pound in those with three. (See table 16A.)

Two-adult families in Oakland with no children averaged 0.15 pound per person; those with three children averaged 0.12 pound. In Los Angeles the corresponding figures were 0.18 pound and 0.10 pound.

The average household expense was higher in the families with the larger number of children, but the average amount spent per person was lower. In Oakland the amount spent for Cheddar cheese decreased from 11 cents per person in families with no children to 7 cents in families with three; in Los Angeles the amounts decreased from 12 to 6 cents.

Cheddar cheese was less important as a source of milk equivalent in families with three children than in families with one, two, or none. It also constituted a smaller proportion of total expense for dairy products in these families.

Uses

Over 50 per cent of the Cheddar cheese used by families during the week studied was for sandwiches; 22 to 24 per cent

Table 10. Uses of Cottage Cheese, American Cheddar Cheese, and Other Cheese During One Week by Households in Oakland and Los Angeles

Uses	Total used in each way		Per cent of households using				Average quantities per household			
			All households		Households using		All households		Households using	
	Oak.	L. A.	Oak.	L. A.	Oak.	L. A.	Oak.	L. A.	Oak.	L. A.
	per cent	per cent					lbs.	lbs.	lbs.	lbs.
Cottage cheese:										
All uses	100.0	100.0	59.4	68.0	100.0	100.0	0.70	0.93	1.19	1.36
At the table	48.2	55.6	31.4	45.0	52.8	66.2	0.34	0.52	1.08	1.14
Alone	48.1	55.3	31.4	44.6	52.8	65.6	0.34	0.51	1.08	1.15
As spread	0.1	0.3	0.2	0.4	0.4	0.6	*	*	0.37	0.67
In sandwiches	0.7	0.3	0.7	0.6	1.2	0.9	0.01	*	0.67	0.52
In food preparation	1.6	2.5	1.2	2.5	2.0	3.7	0.01	0.02	0.95	0.93
In salads	49.3	40.9	38.0	36.8	63.9	54.2	0.35	0.38	0.91	1.03
Other uses	0.2	0.7	0.5	1.4	0.8	2.0	*	0.01	0.38	0.44
American Cheddar cheese:										
All uses	100.0†	100.0†	66.7	69.8	100.0	100.0	0.40	0.50	0.60	0.71
At the table	24.1	21.8	18.6	21.4	27.9	30.7	0.10	0.11	0.52	0.50
Alone	23.4	21.6	17.7	20.9	26.5	29.9	0.09	0.11	0.53	0.51
As spread	0.7	0.1	0.9	0.4	1.4	0.6	*	*	0.32	0.18
Other	...	0.1	...	0.2	...	0.3	...	*	...	0.10

In sandwiches	55.6	53.9	47.4	50.3	71.0	72.1	0.22	0.27	0.47	0.53
In food preparation	19.1	23.1	26.2	29.0	39.2	41.6	0.08	0.12	0.29	0.39
In salads	0.3	0.5	1.2	1.6	1.8	2.2	*	*	0.11	0.16
Other hard cheese:										
All uses	100.0†	100.0†	18.2	24.2	100.0	100.0	0.07	0.13	0.41	0.55
At the table	35.5	28.3	4.5	7.2	24.7	29.8	0.03	0.04	0.58	0.52
Alone	27.3	26.1	3.5	6.4	19.5	26.6	0.02	0.03	0.57	0.54
As spread	2.6	0.4	0.7	0.4	3.9	1.6	*	*	0.27	0.14
Other	...	1.5	...	0.4	...	1.6	...	*	...	0.50
In sandwiches	38.1	44.3	8.3	9.9	45.5	41.1	0.03	0.06	0.34	0.59
In food preparation	22.9	20.1	7.3	8.2	40.3	33.9	0.02	0.03	0.23	0.32
In salads	3.5	6.1	1.2	5.5	6.5	22.6	*	0.01	0.22	0.15
Cream cheese, cr. cheese spreads:										
All uses	100.0†	100.0†	17.7	23.0	100.0	100.0	0.06	0.07	0.32	0.29
At the table	37.3	26.6	5.0	7.8	28.0	33.9	0.02	0.02	0.43	0.23
Alone	9.2	4.8	1.2	1.6	6.7	6.8	0.01	*	0.45	0.21
As spread	28.1	21.8	3.8	6.2	21.3	27.1	0.02	0.02	0.43	0.23
In sandwiches	51.3	43.7	10.6	10.9	60.0	47.5	0.03	0.03	0.28	0.27
In food preparation	3.8	10.5	1.2	2.3	6.7	10.2	*	0.01	0.18	0.30
In salads	7.6	17.1	1.9	5.3	10.7	22.9	*	0.01	0.23	0.22
Other uses	...	0.6	...	0.2	...	0.8	...	*	...	0.19

* Less than 0.005 pound.
† Columns do not add to 100 per cent because a few households failed to report specific uses of the product.

was used at the table; 19 to 23 per cent was used in food preparation. (See table 10.)

Over 70 per cent of the families who used Cheddar cheese used it in sandwiches, at an average of about 0.50 pound per week. These families constituted about 50 per cent of the total studied.

Practically all the Cheddar cheese used at the table was served alone. About one fifth of the families used it in this way, averaging about 0.50 pound per week by those using it. Cheddar cheese was used in food preparation by 26 to 29 per cent of the families, those using it averaging almost 0.33 pound per week.

Other Cheese

From 32 to 40 per cent of the families studied used some cheese other than American Cheddar or cottage cheese during the week of the survey. This included other kinds of hard cheese, cream cheese, and cream cheese spreads. In Oakland about 46 per cent of the total used was cream cheese and cream cheese spreads, and 54 per cent was hard cheese. In Los Angeles the proportions were 35 and 65 per cent, respectively. The average quantities used amounted to about 0.1 to 0.2 pound per household. The families who used this cheese averaged about 0.50 pound per household. All families spent, on the average, from 11 to 17 cents for this kind of cheese—an average of 4 to 6 cents per person. (See tables 11A, 12A.)

When families were classified on the basis of their weekly food expense, the average quantities used per household and per person were higher in the families spending the larger amounts for food. This was also true when families were classified on the basis of annual family income. Slightly more was used by families with the higher incomes per person, but this was less marked than when families were classified by food expense or total family income.

Families with three persons used larger quantities and spent larger amounts, on the average, than those with two persons, and those with four persons used more and spent more than those with three persons. However, the average quantities and expense per person were lowest in the four-person families and highest in the two-person ones.

Families with children used more of this kind of cheese per household but less per person than did families without children. The former spent more per household, but the same amount per person as the families without children. In the two-adult families there did not seem to be a consistent relationship between quantity or expense and number of children.

From 38 to 44 per cent of the hard and 44 to 51 per cent of the soft cheese was used in sandwiches and from 27 to 37 per cent was used at the table, including that used as a spread. From 4 to 17 per cent was used in salads. From 20 to 23 per cent of the hard cheese and 4 to 10 per cent of the soft cheese was used in food preparation. (See table 10.)

Frozen Desserts

About half of the families in Oakland and Los Angeles used frozen desserts during the week of the survey. Ice cream was by far the most popular, with sherbet and ice milk each used by fewer than 4 per cent of the families. (See table 12A.)

Frozen desserts supplied less than 3 per cent of the total milk equivalent used by the households studied. On the other hand, they accounted for about 10 per cent of the total expense for dairy products. The low proportion of milk equivalent is explained by the fact that ice cream is high in fat which is not included in the milk equivalent based on protein and minerals. (See table 11A.)

The families studied consumed, on the average, about 0.8 pound per household and almost 0.3 pound per person during the week. Those who used frozen desserts averaged twice as much per family—over 1.6 pounds—as the average of all families. The average expenditure varied from 39 to 41 cents per household and from 13 to 14 cents per person. (See tables 11A, 12A.)

Relation to weekly food expense

The proportions of families using frozen desserts, the average quantities used, and the expenditures for them increased from one food expense class to another up to $40 per week.

Only 21 to 23 per cent of the families who spent less than $10 for food during the week used frozen desserts. They spent from 5 to 9 cents per household or 3 to 4 cents per person, and used about 0.2 pound per household and 0.1 pound per person.

Of the families spending from $30 to $39 per week for food, 56 per cent and 76 per cent, respectively, used frozen desserts in Oakland and Los Angeles. They averaged 1.0 and 1.6 pounds per household and spent 65 and 76 cents, respectively, for frozen desserts. Their average expenses per person were 17 and 19 cents, and the average quantities used were 0.25 and 0.41 pound, respectively.

Relation to total family income

The proportion of families using frozen desserts was, without exception, higher in each income group than in the group next lower. This was usually but not always true of average quantities used per household and per person.

ANNUAL FAMILY INCOME	AV. QUANTITIES USED PER WEEK			
	Per hld.		*Per person*	
	Oak. *lbs.*	*L.A.* *lbs.*	*Oak.* *lbs.*	*L.A.* *lbs.*
Under $2,000	0.36	0.38	0.15	0.17
$2,000–2,999	0.65	0.60	0.23	0.22
$3,000–3,999	0.63	0.61	0.20	0.19
$4,000–5,999	0.98	1.10	0.33	0.36
$6,000 and over	0.94	1.18	0.34	0.39

Average expense per household ranged from 14 to 15 cents, respectively, in the lowest income groups in Oakland and Los Angeles to 51 and 61 cents in the highest income groups. Expense per person averaged 6 cents in Oakland and 7 cents in Los Angeles in the lowest income group, and 18 and 20 cents, respectively, in families with the highest incomes.

Families earning less than $500 per person spent an average of 4 cents per person for frozen desserts and used about 0.1 pound per person during the week studied. Those with incomes of $3,000 or more averaged 24 cents in Oakland and 29 cents in Los Angeles. They averaged 0.37 and 0.56 pound, respectively.

Relation to number of persons in the family

More of the larger families used frozen desserts, used larger average quantities, and spent more per household than did those with fewer numbers of persons. On the other hand, the average quantities and average expense per person were smaller in the larger families.

Only about two fifths of the two-person families used frozen desserts; three fifths of the four-person families used them.

NUMBER OF PERSONS	AV. QUANTITIES USED PER WEEK			
	Per hld.		*Per person*	
	Oak. *lbs.*	*L.A.* *lbs.*	*Oak.* *lbs.*	*L.A.* *lbs.*
Two	0.62	0.58	0.32	0.30
Three	0.67	0.88	0.23	0.30
Four	1.11	1.06	0.28	0.27

Expense per household for frozen desserts ranged from 33 and 28 cents, respectively, in Oakland and Los Angeles in the two-person families to 50 and 51 cents in the four-person families. In Oakland average expense per person decreased from 17 cents in the two-person families to 13 cents in the four-person families, while in Los Angeles the decrease was from 14 to 13 cents in the corresponding families.

Relation to children in the family

The presence of children in the family affected both the total quantities and expenditures for frozen desserts. Families with children averaged about one third to over two thirds more in quantities per household, and one fourth to almost three fourths more in expense than did families with no children. (See table 15A.)

When average quantity and expense per person were determined, families without children averaged about the same or slightly more per person than did those with children. For example, in Oakland the families with children averaged 0.24 pound per person, per week, those without averaged 0.32 pound. In Los Angeles the families with children averaged 0.28 pound, those without, 0.29.

The proportion of total milk equivalent provided by frozen desserts in Oakland families with children was 2.4 per cent and in those without children, 3.6 per cent. In Los Angeles the proportion was 2.6 per cent in both groups. The proportion of total expense accounted for by frozen desserts in Oakland was 8.7 per cent in families with children and 12.1 per cent in those without. In Los Angeles the proportions were 9.7 and 8.9 per cent, respectively.

In the two-adult families the average quantities used and average expense per household were higher in families with the larger number of children. The highest average expense and quantity per person were in Oakland families with no children and in Los Angeles families with no children or with one child. The lowest quantities and expense in both areas were in families with three children. (See table 16A.)

The proportion of total milk equivalent supplied by frozen desserts was highest in Oakland in the two-adult families with no children, and in Los Angeles it was about the same in this group and in those with one child. The situation was approximately the same for proportion of total expense for dairy products.

Butter

Over half of the families in both Oakland and Los Angeles used butter during the week studied. All the families in the survey averaged slightly over 0.5 pound per household or 0.18 pound per person. The households who used butter averaged about 1 pound per household in both cities. (See tables 11A, 12A.)

Relation to weekly food expense

The proportions of families using butter and the average quantities used per household were higher in each food expense class than in the next lower one. Over 38 per cent of the families in Oakland and 43 per cent of those in Los Angeles who spent less than $10 per week for food used butter but the proportions increased to 71 and 79 per cent of the families who spent $40 or more for food.

WEEKLY FOOD EXPENSE	AV. QUANTITIES USED PER WEEK			
	Per hld.		*Per person*	
	Oak. *lbs.*	*L.A.* *lbs.*	*Oak.* *lbs.*	*L.A.* *lbs.*
Less than $10	0.20	0.29	0.09	0.15
$10–19.99	0.34	0.44	0.14	0.18
$20–29.99	0.57	0.52	0.19	0.16
$30–39.99	0.81	0.84	0.21	0.21
$40 and over	1.25	0.95	0.25	0.20

The average expense for butter per household and per person was higher in the higher food expense classes than in the lower ones. The average expense per household was 17 cents in Oakland and 18 cents in Los Angeles for families spending less than $10 for food, and $1.01 and 77 cents, respectively, for families spending $40 or more. The average expense per person was 2 cents in Oakland and 10 cents in Los Angeles for the lowest food expense class, and 20 cents in Oakland and 16 cents in Los Angeles for the highest food expense class.

Relation to annual family income

When families were classified by total family income, the consumption of butter was higher in each income class than in the one next lower for all families in Oakland and for all with incomes of $2,000 or more in Los Angeles.

The differences in the use of butter by families with incomes of $4,000 to $5,999 and those with $6,000 and over were very noticeable. The proportions of families in the higher income group who used butter were about 50 per cent higher than those of families with the smaller incomes. The families with $6,000 and over used about 60 per cent more butter and spent that much more for it than did families with $4,000 to $5,999.

Only 24 per cent of the families in Oakland with less than $2,000 used butter. From 42 to 45 per cent of those with incomes between $2,000 and $4,000 in both Oakland and Los Angeles used it. Of those with incomes of $6,000 and over, 80 per cent in Oakland and 73 per cent in Los Angeles used it during the week studied.

ANNUAL FAMILY INCOME	AV. QUANTITIES USED PER WEEK			
	Per hld.		*Per person*	
	Oak.	*L.A.*	*Oak.*	*L.A.*
	lbs.	*lbs.*	*lbs.*	*lbs.*
Less than $2,000....	0.17	0.46	0.07	0.20
$2,000–2,999	0.40	0.37	0.14	0.13
$3,000–3,999	0.39	0.45	0.12	0.14
$4,000–5,999	0.55	0.51	0.19	0.17
$6,000 and over.....	0.88	0.80	0.32	0.27

The average expense for butter in Oakland ranged from 13 to 69 cents per household and from 5 to 25 cents per person from the lowest to the highest income group. In Los Angeles the lowest average expenses—29 cents per household and 11 cents per person—were in families with incomes between $2,000 and $2,999, while the highest expenses were 63 cents per household and 21 cents per person in families with $6,000 and over.

When families were grouped on the basis of family income per person, those with the higher incomes used larger amounts of butter. The average amount used in Oakland increased from 0.15 pound in families with less than $500 per person to 0.73 pound in families with $2,000 to $2,999. In Los Angeles the lowest amount used—0.36 pound—was by families with incomes between $500 and $999, and the largest amount—0.73 pound—by families with $2,000 to $2,999. The average quantities used per person in the corresponding income groups were 0.04 and 0.32 pound in Oakland and 0.11 and 0.34 pound in Los Angeles.

The averaged expense in Oakland varied from 12 cents per household and 3 cents per person in the families with the lowest income per person to 52 cents per household and 25 cents per person in those with the highest income. In Los Angeles these expenses were 27 cents per household and 7 cents per person in the group with incomes between $500 and $1,000, and 54 cents and 28 cents, respectively, in the group with $3,000 and over.

Relation to number of persons in the family

In Oakland 54 per cent of three-person families and in Los Angeles 58 per cent used butter, but only 47 per cent of the four-person families in Oakland and 50 per cent in Los Angeles used it. Average quantities used per household were higher in three-person families than in those with two or with four persons in both cities. However, the average quantities used per person were higher in the smaller families.

NUMBER OF PERSONS	AV. QUANTITIES USED PER WEEK			
	Per hld.		*Per person*	
	Oak.	*L.A.*	*Oak.*	*L.A.*
	lbs.	*lbs.*	*lbs.*	*lbs.*
One	0.42	0.48	0.22	0.25
Two	0.60	0.62	0.21	0.21
Three	0.57	0.59	0.15	0.15

The average expense per household varied from 33 and 37 cents (Oakland and Los Angeles) in two-person families to 48 cents in three-person families and

Table 11. Uses of Butter and Oleomargarine by All Families Using and by Those Using One Only or Both During One Week, in Oakland and Los Angeles

Households	All uses[*]		Used at the table		Used in sandwiches[†]		Used in food preparation	
	Oak.	L. A.	Oak.	L. A.	Oak.	L. A.	Oak.	L. A.
All households using butter:								
Per cent of total households	51.9	52.8	49.8	52.2	27.4	21.2	40.8	42.9
Average pounds per household using	1.03	1.02	0.71	0.68	0.16	0.20	0.29	0.32
Per cent of total used[†]	100.0	100.0	66.4	66.5	8.4	7.9	22.4	25.4
All households using oleomargarine:								
Per cent of total households	67.7	65.3	58.5	57.7	34.7	32.4	59.9	59.3
Average pounds per household using	1.02	1.13	0.74	0.73	0.18	0.35	0.30	0.34
Per cent of total used	100.0	100.0	62.8	57.2	9.1	15.1	25.5	27.5
Households using butter only:								
Per cent of total households	32.0	34.3	29.7	21.2	16.5	15.8	30.9	31.4
Average pounds per household using	1.07	1.07	0.71	0.71	0.08	0.09	0.28	0.29
Per cent of total used	100.0	100.0	66.4	65.1	7.5	8.3	26.1	24.8
Households using oleomargarine only:								
Per cent of total households	48.0	46.8	46.2	46.8	29.5	27.1	42.2	44.4
Average pounds per household using	1.13	1.28	0.77	0.77	0.12	0.21	0.25	0.31
Per cent of total used	100.0	100.0	67.0	59.2	10.4	16.2	21.7	24.6
Households using butter and oleomargarine:								
Per cent of total households	19.8	18.5	18.6	18.5	10.8	5.5	11.3	11.5
Average pounds per household using:								
Butter	0.99	0.89	0.72	0.63	0.12	0.06	0.14	0.20
Oleomargarine	0.75	0.70	0.38	0.34	0.05	0.08	0.32	0.28
Per cent of total used:								
Butter	100.0	100.0	71.1	70.3	12.2	6.6	16.7	23.1
Oleomargarine	100.0	100.0	50.7	48.5	5.8	11.8	43.5	39.7

[*] Total of specific uses does not in all cases equal 100 per cent since a few families did not report specific uses of butter and oleomargarine.

[†] This includes all the butter and oleomargarine used in sandwiches made and/or eaten at the table or prepared in the kitchen and carried in lunches and/or to picnics.

45 cents in four-person families in both cities. Average expense per person varied in Oakland from 17 cents in two- and three-person families to 11 cents in four-person families. In Los Angeles expenditure averaged 19 cents per person in two-person families, 17 cents in the three-person, and 12 cents in the four-person families.

Relation to children in family

Families with children used slightly higher average quantities of butter per household than did families without. However, average quantity used per person was 53 to 60 per cent greater in families without children. Families with children averaged 0.15 pound in both Oakland and Los Angeles; families without children, 0.23 to 0.24 pound per person. (See table 15A.)

Household expense for butter was also higher in families with children, while the expense per person was higher in families without children.

Butter accounted for 8 to 9 per cent of the total expense for dairy products in families with children and 13 to 14 per cent in families without.

Two-adult families with one child used the highest average amounts of butter per household, 0.58 pound in Oakland and 0.56 pound in Los Angeles. The smallest average amount used by Oakland families—0.38 pound—was in families with no children, and that by the Los Angeles families—0.27 pound—was in families with three children. (See table 16A.)

The average quantity used per person decreased from 0.21 pound in two-adult families in Oakland with no children or one child to 0.11 pound in families with three children. In Los Angeles families with no children averaged 0.26 pound per person, and with three children, only 0.06 pound.

The highest expense for butter in two-adult households occurred in families with one child—from 43 to 45 cents per household. In terms of expense per person, however, the expense declined as the number of children increased, from 17 to 20 cents per person in families with no children to 5 to 9 cents in families with three.

The proportion of total expense for dairy products spent for butter decreased from about 13 per cent in families with no children to 6 per cent in Oakland and 4 per cent in Los Angeles in families with three.

Uses

Two thirds of the butter was used at the table by approximately half the families in the study. The average per household for the families using it at the table was about 0.7 pound. Most of this—56 per cent of the total—was used as a spread. The remainder, almost 10 per cent, was used in seasoning vegetables at the table. (See table 11.)

About 8 per cent of the butter was used by 21 to 27 per cent of the families in sandwiches made and/or eaten at the table or prepared in the kitchen and carried in lunches or to picnics.

From 22 to 25 per cent was used in food preparation by over two fifths of the households. The families who used butter in food preparation averaged about 0.3 pound per household. About half that used in food preparation (one eighth of the total) was used in seasoning vegetables during their preparation. About 5 per cent of the total butter was used in preparing baked goods.

Nondairy Fats Competing with Butter

Several kinds of fats compete with butter in a number of ways. Oleomargarine competes with butter in many uses whereas vegetable oils and shortenings compete with butter almost entirely in food preparation.

Oleomargarine

Oleomargarine was used by about two-thirds of the families in the study, as compared with slightly over half who used butter.

All the Oakland families in the study averaged 0.53 pound of butter and 0.69 pound of oleomargarine during the week studied; those in Los Angeles used 0.54 pound of butter and 0.74 pound of oleomargarine. The average expense per household was 25 cents for oleomargarine and 42 cents for butter in both cities.

The households who used oleomargarine used about the same average amounts per household as those who used butter, that is, slightly over 1 pound per household. The families who used oleomargarine averaged 37 cents in Oakland and 38 cents in Los Angeles per household. Those who used butter averaged 81 and 79 cents in the respective cities.

Although the proportions of families using butter increased from the group spending the lowest amount for food to that spending the most, 72 per cent of the families in Oakland who spent less than $10 per week for food used oleomargarine, but only 50 per cent of those who spent $40 or more used it. In Los Angeles, however, the proportions using oleomargarine did not vary much from the average (65 per cent) although 71 per cent of the families who spent $40 or more for food used it.

The average quantities of oleomargarine used per household increased from 0.49 pound used by families in Oakland who spent less than $10 for food to 0.71 pound by those who spent $40 or more. Quantities used by families in these food expense classes in Los Angeles varied from 0.40 to 1.09 pound per household. Quantities of butter varied more, that is, from 0.23 to 1.25 pound in Oakland and from 0.29 to 1.11 pounds in Los Angeles in the respective food expense classes.

The average amount spent for oleomargarine per household in Oakland varied from 16 cents, for those spending less than $10 for food, to 30 cents for those spending $30 to $39. Comparable expenditures in Los Angeles were 14 to 36 cents.

From 57 to 63 per cent of the total oleomargarine, about 0.75 pound per household, was used at the table by about 58 per cent of the families. Most of this—50 to 60 per cent of the total used—was used as a spread by 56 per cent of the families. About 6 per cent of the oleomargarine was used in seasoning vegetables at the table. From 9 to 15 per cent of the total was used in sandwiches by about a third of the families. (See table 11.)

From 25 to 27 per cent of the oleomargarine was used in food preparation by almost 60 per cent of the families. About half of that used in food preparation, or 12 to 14 per cent of the total, was used for seasoning vegetables. From 5 to 7 per cent was used in baked goods, and smaller amounts in frying, in sauces, and the like.

Families using butter and/or oleomargarine. Consideration of the use of butter and oleomargarine by all the families using these fats does not fully describe their consumption patterns since some families used both fats and some used only one during the week studied. (See table 11.)

PRODUCT USED	AV. QUANTITIES USED PER WEEK BY HOUSEHOLDS USING			
	Per hld.		*Per person*	
	Oak.	*L.A.*	*Oak.*	*L.A.*
	lbs.	*lbs.*	*lbs.*	*lbs.*
Butter and oleomargarine:				
Butter	1.00	0.89	0.30	0.28
Oleomargarine	0.75	0.70	0.22	0.23
Butter only	1.06	1.08	0.41	0.39
Oleomargarine only	1.13	1.28	0.37	0.33

Almost one fifth of the families used both butter and oleomargarine, one third used butter only, and less than one half used oleomargarine only. Families who used both fats used more per household and per person than did those who used only one. Those who used only oleomargarine averaged slightly higher amounts per household than did those using only butter, but slightly smaller amounts per person.

Families who used both fats averaged more butter than oleomargarine—almost as much per household as the families who used butter only. Butter constituted 56 to 57 per cent of the total amount of the two fats used by these families in each of the areas. About 52 per cent of the households in Oakland and 59 per cent of those in Los Angeles who used both fats used more butter than oleomargarine; 23 per cent in Oakland and 29 per cent in Los Angeles used more oleomargarine than butter.

Families using both butter and oleomargarine spent almost three times as much for the butter as for the oleomargarine. They spent more for the two fats than the families who used only one kind.

PRODUCT USED	AVERAGE EXPENSE PER WEEK BY HOUSEHOLDS USING			
	Per hld.		*Per person*	
	Oak.	*L.A.*	*Oak.*	*L.A.*
Butter and oleomargarine:				
Butter	$.72	$.70	$.22	$.22
Oleomargarine	.26	.24	.08	.08
Butter only	.86	.87	.33	.32
Oleomargarine only	.41	.43	.13	.14

The average price paid for butter varied from 76 to 81 cents per pound, and that for oleomargarine, from 33 to 36 cents per pound.

The relative prices of the two fats apparently were important since the mean income per household and per person of families who used only butter was considerably higher than that of families using only oleomargarine. The former also had smaller families than those using either both fats or only oleomargarine. Although the mean family income of those using both butter and oleomargarine was about the same as that of those using butter only, the average size of families using both fats was considerably larger and thus their average income per person was smaller. This group spent more per week for all food, per household, than did other families, but their average per person was between that of those using butter only and of those using oleomargarine only in Oakland, and higher than either in Los Angeles.

PRODUCT USED	AV. SIZES, MEAN INCOMES, AND MEAN FOOD EXPENDITURES OF HOUSEHOLDS USING			
	Per hld.		*Per person*	
	Oak.	*L.A.*	*Oak.*	*L.A.*
Butter and oleomargarine:				
Average no. persons	3.30	3.00	...	...
Mean annual income	$4,844	$4,701	$1,517	$1,478
Av. weekly food exp.	$24.42	$26.35	$7.41	$8.29
Butter only:				
Average no. persons	2.58	2.78	...	...
Mean annual income	$4,830	$4,720	$1,855	$1,719
Av. weekly food exp.	$22.18	$21.62	$8.69	$7.93
Oleomargarine only:				
Average no. persons	3.00	3.09	...	...
Mean annual income	$3,556	$4,027	$1,171	$1,293
Av. weekly food exp.	$20.55	$20.97	$6.79	$6.78

The proportions of families using butter alone were higher among those families with high incomes than among those with small ones, although they varied little in families with incomes between $3,000 and $6,000. On the other hand the proportions using oleomargarine alone were lower in the higher income groups, although the average quantities used per household were larger at the higher income level. The proportions using both fats tended to be larger in the higher income groups, especially in Oakland. Oleomargarine accounted for smaller proportions of the total fat used in the higher income groups.

Vegetable shortenings and oils

About 58 per cent of the households in Oakland and 44 per cent in Los Angeles used vegetable oils during the week studied. About 63 per cent in both cities used vegetable shortenings. They averaged 0.2 pound of the vegetable oils per household and from 0.28 to 0.31 pound of the vegetable shortening. The households that used vegetable oils averaged about 0.4 pound and those that used the shortenings, about 0.5 pound per week.

The average weekly expense for vegetable oils for all households was 8 cents in Oakland and 9 cents in Los Angeles. Those who used these oils in Oakland averaged 15 cents per household, and in Los Angeles 19 cents.

Households spent an average of 9 cents for shortenings in Oakland and 12 cents in Los Angeles. The expenditures of those using the shortenings averaged the same as those using the oils.

About two thirds of the total vegetable oil used was for food preparation—40 per cent in frying, 12 to 16 per cent in baked goods, and 4 per cent in sauces and the like. About one third of the oil was used for salad dressing. All the vegetable shortening was used for food preparation—from 58 to 60 per cent in baked goods and 38 to 40 per cent in frying.

Lard

Only 5 per cent of the families used lard during the week studied. The average quantities of all families studied was only 0.03 pound, and the average expense 1 cent per household. However, the few households who used lard averaged 0.60 to 0.76 pound per week, and spent an average of 16 cents for it.

All the lard was used in food preparation. Over 70 per cent was used for frying in Oakland and 63 per cent in Los Angeles. From 28 to 29 per cent was used in baked goods.

Where Families Purchased Dairy Products

The sources of purchase by households using major deliverable dairy products were determined. About 87 per cent of the families studied in Oakland and about 81 per cent of those in Los Angeles bought some fluid milk, half-and-half, cream, cottage cheese, or butter in grocery stores during the seven-day period covered by the survey. On the other hand, only 45 per cent of the families in Oakland and 55 per cent of those in Los Angeles had any of these products delivered to their homes by dairies, that is, processing plants.

About 52 per cent of the families in Oakland and 38 per cent of those in Los Angeles bought all of the products mentioned above which they used during the week, in retail grocery stores. About 22 per cent in Oakland and 18 per cent in Los Angeles obtained all of them in chain stores, and 23 per cent in Oakland and 14 per cent in Los Angeles obtained them all from independent stores. From 6 to 7 per cent bought them from both chain and independent stores.

Only 10 per cent of the Oakland families and 9 per cent of those in Los Angeles had all of these products which they used during the week delivered. Over 34 per cent in Oakland and 43 per cent in Los Angeles bought some in grocery stores and had some delivered. Only a very few families bought dairy products from other sources, such as dairy outlet stores, drug stores, delicatessens, and the like.

Homogenized milk

From 50 to 59 per cent of the families who used homogenized milk during the week did not have any of it delivered, while 28 to 34 per cent had all they used delivered. Almost 70 per cent of the families who had any of their homogenized milk delivered had all of it delivered. Only about 2 per cent of the families had less than half of their milk delivered. (See table 17A.)

The proportions of families who had either all, or 50 per cent or more of their milk delivered increased from the lower income levels to the higher ones; conversely the proportions who had none delivered decreased. There seemed to be no particular relation between practices in having milk delivered and size of family income per person except that in Los Angeles the proportion having all their milk delivered was largest at the highest income level. (See table 17A.)

The relationship between weekly food expense and delivery of milk was not obvious. However, there seemed to be some tendency in Los Angeles for the proportion of households who had none delivered to decrease and the proportion who had all of it delivered to increase from the lowest to the highest food expense level. (See table 17A.)

In the two-adult families there was a considerable difference in the practices of families with no children under 16 years and those who had one, two, or three children. The proportions of the families with no children who had no milk delivered were much larger than the proportions of those with children. Likewise, the proportions who had all their milk delivered were smaller in the families without children.

The proportions of the families who had no milk delivered were lower in the families with three children than in those with only one child. The practice of using delivery service is in all probability related to the amount of milk used. Families without children used on the average 5 to 6 quarts of fluid milk per week, those with one child used almost 11 quarts, and those with three children used 19 to 20 quarts.

From 44 to 54 per cent of all the homogenized whole milk used was purchased by families who bought all their milk at retail stores or other such outlets. From 29 to 33 per cent was obtained by families who had all their milk delivered, and from 14 to 17 per cent was secured by families who had half or more of it delivered. (See table 18A.)

The proportions of total milk used which was delivered or bought at stores did not vary significantly with variation in annual income per household and per person or with weekly food expense. (See table 17A.)

About 23 per cent of the milk used by the Oakland families and 17 per cent of that used by the Los Angeles families was purchased by those who secured all their milk from chain stores. Thirty per cent of that used in Oakland and 21 per cent of that used in Los Angeles was used by families who bought all their milk in independent stores. (See table 18A.)

Families who had some of their milk delivered by dairies and who bought some of it at retail stores used somewhat higher average quantities per household and per person than did the families who had all their milk delivered or who bought all of it at retail stores. Families who had some delivered and who bought some at chain stores used the largest amounts, and those who secured their milk only from chain stores used the smallest quantities.

SOURCE OF MILK	AV. QUANTITIES USED PER WEEK PER HLD.	
	Oak.	*L.A.*
	qts.	*qts.*
All delivered	9.7	9.9
Some delivered and:		
Some at chain stores	13.7	15.4
Some at independent stores	10.9	13.4
All at chain stores	7.9	7.5
All at independent stores	9.7	10.4

Half-and-half

The majority of the families studied (75 per cent in Oakland, 62 per cent in Los Angeles) secured all their half-and-half from retail stores. Over 77 per cent of the total amount used in Oakland and 52 per cent of that used in Los Angeles was secured from this source. These families used about 2 pounds per household or 0.7 to 0.8 pound per person during the week studied. (See table 18A.)

Forty-two per cent of the families in Oakland and 34 per cent in Los Angeles secured all the half-and-half they used at chain stores. This constituted 41 and 25 per cent, respectively, of the total amounts used in the two cities. These families used an average of 2 pounds per household in Oakland and 1.7 pounds in Los Angeles.

A much smaller proportion of the families (32 per cent in Oakland, 23 per cent in Los Angeles) secured all their half-and-half at independent stores. They used somewhat larger amounts, on the average, than did families who bought only at chain stores, that is, 2.3 pounds per household.

About 24 per cent of the families in Oakland and 34 per cent of those in Los Angeles had all the half-and-half they used delivered by dairies. The amounts used by these families accounted for 20 per cent of the total used in Oakland and 40 per cent of that in Los Angeles. Their consumption averaged 1.8 pounds per family in Oakland and 2.7 pounds per household in Los Angeles—0.6 and 0.9 pound per person, respectively.

Cottage cheese

Over three fourths of the families studied (78 per cent in both cities) obtained all the cottage cheese they used at retail stores. This amount accounted for about three fourths of the total used. (See table 18A.)

About 40 per cent of the families in Oakland and 49 per cent of those in Los Angeles secured all their cottage cheese at chain stores, accounting for 40 and 47 per cent, respectively, of the total amount used. The families who secured all their cottage cheese at chain stores averaged 1.2 pounds per household in Oakland, 1.3 pounds in Los Angeles.

Thirty-eight per cent in Oakland and 27 per cent of the families in Los Angeles bought all their cottage cheese at independent stores. This accounted for 34 and 26 per cent, respectively, of the total amounts used in Oakland and Los Angeles. The average amounts used per household were about the same as for the families who bought only at chain stores.

About one fifth of the families in both cities had some cottage cheese delivered during the week studied. Almost all of them had all they used delivered. The cottage cheese used by these families also accounted for about one fifth of the total used. These families averaged 1.3 to 1.4 pounds per family.

Butter

From 82 to 86 per cent of the families studied bought all their butter at retail stores. About 47 per cent of those in Oakland and 61 per cent of those in Los Angeles secured all their butter from chain stores. The butter used by these families accounted for 46 to 56 per cent of the total used. These families averaged about 1 pound per household per week. (See table 18A.)

Almost 39 per cent of the families in Oakland and 21 per cent in Los Angeles bought all their butter at independent stores. Butter purchased at these stores accounted for about 38 per cent of the total used in Oakland and 23 per cent of that used in Los Angeles. These families used about the same average amounts per household and per person as those securing all their butter from chain stores.

About 11 per cent of the families in Oakland and 15 per cent in Los Angeles had all the butter they used delivered by dairies. None of the families in the study divided their purchases of butter between retail stores and direct delivery by dairies. Butter which was delivered made up 13 per cent of the total used in Oakland and 18 per cent in Los Angeles. Families having butter delivered averaged slightly higher amounts per household (1.2 pounds) and per person (0.4 pound) than did families securing their butter at other sources.

Dairy Products in the Diet

Dairy products were a very important source of a number of important nutrients in the diets of the families studied in Oakland and Los Angeles. They provided almost one fourth to over four fifths of the total amount of each of the different nutrients—except iron and niacin—recommended in the entire diet by the National Research Council.[2] (See table 19A.)

PER CENT RECOMMENDED ALLOWANCES PROVIDED BY DAIRY PRODUCTS CONSUMED BY ALL FAMILIES

NUTRIENT	*Oak.*	*L.A.*
Calories	23.4	26.1
Protein	39.9	45.4
Calcium	84.1	93.9
Riboflavin	70.9	78.8
Vitamin A	34.9	38.5
Thiamin	16.7	18.7
Ascorbic acid	11.1	12.2
Iron	8.1	9.0
Niacin	4.4	5.0

Dairy products, an important source of calcium, provided 84 per cent of the total recommended amount in the diets of the Oakland families and 94 per cent in the diets of the Los Angeles families. They provided 40 per cent (Oakland) and 45 per cent (Los Angeles) of the recommended protein. As indicated below, these products were also important sources of several valuable vitamins.

The economic importance of dairy products as a source of the various nutrients is evident from the fact that the Oakland families spent about 18 per cent of their food dollar for dairy products during the week of the study, and the Los Angeles families spent about 20 per cent. The proportions of the recommended quantities of calcium and riboflavin provided by dairy products were from four to four and one-half times as high as the proportions of the expenditures. The proportions of protein and vitamin A were considerably higher than the proportions of food expenditures, the proportions of calories were somewhat higher, while those of thiamin were slightly lower.

Fluid milk

Fluid milk, and specifically whole fluid milk, was the most important source of all the nutrients provided by dairy products, and the most economical in terms of the proportion of money spent for it.

Families spent, on the average, about 9 per cent of their food dollar for whole fluid milk, and received 12 to 14 per cent of their recommended calories, 24 to 27 per cent of the protein, 57 to 63 per cent of the calcium, 50 to 56 per cent of the riboflavin, 15 to 17 per cent of the vitamin A, and 13 to 14 per cent of the thiamin. (See table 19A.)

The importance of whole fluid milk as a source of nutrients in the diet is shown by a comparison of nutrients provided by it with those provided by all the other dairy products combined. Families spent 47 to 48 per cent of their total expenditures for dairy products for whole milk. The proportions of protein, calcium, riboflavin, and thiamin provided were much higher than the proportions of expense. (See table 20A.)

---

[2] The total recommended requirements for each of the nutrients, for all the individuals in the study, in each city, for one week, were calculated from the recommendations of the National Research Council. (*Recommended Dietary Allowances, Revised, 1953*, National Academy of Sciences-National Research Council Publication 302 [1953], p. 22.)

The total amount of each of these nutrients provided by all the dairy products consumed by all the families in each city during the week of the study was calculated. The calculations were made on the basis of the dairy products consumed in the home. However, as previously stated, the meals eaten away from home by the members of the families were very nearly offset by the meals eaten in the home by guests and others. Therefore, the total consumption of dairy products by the individuals in the study was, in all probability, quite closely represented by the consumption of dairy products in the home.

PER CENT OF TOTAL NUTRIENTS SUPPLIED BY DAIRY PRODUCTS WHICH WERE SUPPLIED BY:

	Whole fluid milk		*All cheese*	
NUTRIENT	*Oak.*	*L.A.*	*Oak.*	*L.A.*
Calories	51.9	51.8	11.3	13.1
Protein	60.5	58.5	20.9	23.6
Calcium	68.2	66.8	12.1	14.1
Riboflavin	71.2	70.6	7.8	9.0
Vitamin A	42.6	43.0	12.4	14.5
Thiamin	77.2	76.5	2.8	3.1

Fluid milk other than whole milk was relatively unimportant in the diet. Families spent only 1 per cent or less of their food expense for this product, and it provided only small proportions of the recommended quantities of the important nutrients.

Other dairy products

All kinds of cheese combined were the second most important source of nutrients. Families spent 2.7 to 3.4 per cent of their food dollar for all kinds of cheese, which provided approximately the same proportions of the recommended calories, and larger proportions of protein, calcium, vitamin A, and riboflavin. American Cheddar cheese was much more important than cottage cheese as a source of calories, calcium, and vitamin A, but the two products supplied about the same proportions of the recommended quantities of protein, riboflavin, and thiamin. (See table 19A.)

Cheese provided almost one fifth of all the protein supplied by all dairy products, and over one eighth of the calories, calcium, and vitamin A.

Families spent less than 1 per cent of their food dollar for evaporated milk and it provided over 1 per cent of the recommended calories, over 2 per cent of the protein, 5 to 6 per cent of the calcium, and 5 to 6 per cent of the riboflavin.

About 2 per cent of the food dollar was spent for butter which provided almost 4 per cent of the calories recommended and about 9 per cent of the vitamin A. Only insignificant proportions of the other nutrients were provided by butter.

Adequacy of quantities of dairy products consumed

The small quantities of milk used as a beverage by some persons in the study raised questions as to whether or not some individuals consumed dairy products in such quantities that these foods in conjunction with others provided an adequate diet. It was impossible to make any generalizations on this point from the data in the study since consumption of all dairy products by individuals was not studied. Neither were the total diets of the individuals or families studied. It was possible, however, to make a *rough* comparison between the quantities of dairy products consumed by families and the amounts suggested by nutritionists as desirable.

The Human Nutrition Research Branch of the United States Department of Agriculture states that nutritionists suggest that children consume, in milk and its equivalent in other dairy products, 1½ pints to 1 quart per day, teenagers 1 quart or more, and adults of all ages 1 pint or more per day.[3]

Using the quantities suggested for individuals, the total corresponding amount was determined for each family on the basis of the composition of the family and the number of meals eaten in the home.[4] The quantity of dairy products in terms of milk equivalent actually consumed by each family for the week studied was determined and compared with the amounts suggested as desirable for a family of comparable size and composition. The proportion of the suggested amount which was actually consumed was determined for each family.

---

[3] *Do You Get Enough Milk?* United States Department of Agriculture Home and Garden Bulletin No. 47, May, 1955, p. 2.

[4] The quantities used in making this computation were 5 quarts per week for children under 13 years, 7 quarts for adolescents from 13 through 20 years, and 3½ quarts for all persons 21 years and over. Since the activities of the individual members could not be taken into account, the suggested desirable amounts for the family as a whole were only approximate.

On the basis of the above computations, the quantities of dairy products (milk equivalent) consumed by three fourths of the families in Los Angeles and by nearly two thirds of those in Oakland were as large as or larger than the quantities recommended as desirable.

In Oakland 8 per cent of the families consumed twice or more than twice as much as the quantities suggested. In Los Angeles 17 per cent of the families were in this category. About half the Oakland families who used less than the suggested quantities were less than 25 per cent below the suggested amounts. In Los Angeles three fifths of the families who used less than the suggested quantities fell in this group.

HOUSEHOLDS THAT CONSUMED QUANTITIES OF DAIRY PRODUCTS EQUAL TO AND ABOVE OR LESS THAN SUGGESTED QUANTITIES

	Oak. *per cent*	*L.A.* *per cent*
Equal to or above suggested amounts:		
All hlds.	64.8	74.9
0–24.9% above	18.9	19.1
25–49.9% above	18.9	19.2
50–99.9% above	18.2	19.5
100–199.9% above	7.0	14.2
200% or more above	1.8	2.9
Below suggested amounts:		
All hlds.	35.2	25.1
0.1–24.9% below	17.8	15.4
25.0–49.9% below	10.1	6.3
50.0–99.9% below	7.3	3.4

When families were grouped according to their composition, 58 to 81 per cent of each group consumed dairy products in quantities as large as or larger than the amounts suggested. The group with the smallest proportion meeting these standards was that with 4, 5, or 6 adults (persons 21 years or more) with or without children under 13 years or adolescents 13 to 20 years. These families constituted only about 5 per cent of the families in both Oakland and Los Angeles.

HOUSEHOLDS	PROPORTIONS USING QUANTITIES AS LARGE AS OR LARGER THAN SUGGESTED QUANTITIES	
	Oak. *per cent*	*L.A.* *per cent*
Two adults:		
No others	63.0	74.8
1 child	77.4	79.5
2 or more children	64.5	80.7
1 or more adolesc., with or without children	57.7	65.6
1 adult and 1 or more children or adolesc.	71.5	78.3
3 adults with or without children or adolescents	69.8	74.2
4, 5, or 6 adults with or without children or adolescents	44.5	63.0

From 36 to 62 per cent of the families in Oakland and from 26 to 80 per cent of those in Los Angeles who used 25 per cent or more above the suggested quantities were two-adult families with no persons under 21 years. These families also constituted from 42 to 52 per cent of the families whose consumption was 25 per cent or more below the suggested amounts.

SEASONAL CONSUMPTION OF DAIRY PRODUCTS IN SACRAMENTO

The seasonal consumption of dairy products was studied by interviewing families in Sacramento during August and September and again in January and February when the weather was considerably cooler than in the summer months.

A total of 305 representative families was interviewed in the summer. In January, 262 of the same families were interviewed a second time and the information secured was recorded on the same kind of schedule as that used in the summer survey. Most of the other families could not be located, and a few did not coöperate in the second interview. Therefore, 43 additional families drawn at random by the same method as that used in the first survey were interviewed in the winter. Altogether, 305 families were interviewed in both summer and winter.

The data secured from the 262 families who were interviewed twice (designated "same households") and those from the entire group of 305 (designated "all households") were analyzed in detail. The latter group in each survey included 43 families who were not interviewed in both seasons.

The data from the two groups were so similar that figures reported here for both groups include only the average expense per household and the average quantities used in terms of milk equivalent per household and per person. (See tables 21A, 22A.) The remainder of the data is reported only for the 262 families who were interviewed in both summer and winter.

Although the composition of the households who were interviewed in both summer and winter changed slightly between the two interviews, it was similar in the two seasons. The families averaged 3.38 persons (21-meal-equivalent) in summer and 3.32 in winter. The median total money income of the families, as calculated from their distribution according to income class, was $4,014 in summer and $4,060 in winter. Because income and composition of households changed slightly, there were some differences in distribution of families in the different categories in the summer and winter surveys. (See table 3A.)

Temperatures During Surveys

The average temperature during the summer survey was more than 20 degrees higher than that during the winter survey. The temperatures in both summer and winter surveys were slightly higher than those of the 43-year average reported by the United States Weather Bureau.

TEMPERATURE DURING SURVEY PERIOD	SUMMER *Degrees F*	WINTER *Degrees F*
Average (mean)	73.93	52.42
Average (mean), weighted	74.20	53.49
43-year average for same weeks as survey......	71.95	47.78

The seven-day period covered by each schedule was noted, and the average daily temperature for each period was weighted by the number of schedules which covered this period. This weighted mean was 74.20°F in the summer and 53.49°F in the winter.

During the summer survey the high seven-day mean temperature was 90°F; the low was 57°F. The high weekly averages ranged from 79° to 96°F and the low, from 54° to 61°F. During the winter survey the high mean temperature was 61°F; the low was 42°F. The high ranged from 56° to 64°F and the low, from 36° to 52°F.

Total Weekly Expense for Dairy Products

Comparison of the total money spent for dairy products by the same families who were interviewed in both summer and winter showed that these families, on the average, spent 18 per cent more for dairy products in summer.

	AVERAGE EXPENSE PER WEEK	
	Summer	*Winter*
Per household	$5.60	$4.74
Per person	1.66	1.43

Expenditures for dairy products were higher in summer regardless of the total amount spent for food. Families spending $10 or more per week for food increased their summer expenditures for dairy products on the average 7 to 10 per cent. (See table 21A.)

Families at all income levels averaged higher expenditures for dairy products in summer than in winter. Families with incomes less than $2,000 per year who were interviewed during both seasons spent 30 per cent more for dairy products in summer. Those with incomes of $4,000 but less than $6,000 averaged expenditures which were one fifth higher in summer than in winter. Families in the highest income group, $6,000 and more, spent on the average one fifth more in summer than in winter. (See table 21A.)

Families with two members, interviewed both summer and winter, used proportionally larger amounts in the summer than the larger families. They spent about one third more for dairy products in summer; families with three members, 8 per cent more; and those with four, almost 17 per cent more. Families with two members spent on the average 48 cents more per person in summer. (See table 21A.)

Families who ate less than one fifth of their meals away from home (about 90 per cent of the total) spent, on the average, about one sixth more for their dairy products in the summer than in winter. The remainder spent about two thirds more in summer. (See table 21A.)

Families in which the head was retired or unemployed did not vary their expense for dairy products from winter to summer. Families of professional and managerial workers and of craftsmen and operatives spent about one fourth more in summer than in winter. (See table 21A.)

The money spent for dairy products by families in which the homemaker was not employed was 15 per cent higher in summer than in winter, and that spent by families in which the homemaker was employed was almost one fourth higher. Expense for dairy products in the summer exceeded that of the winter by one sixth to one fourth in families in which homemakers had more than an eighth-grade education, but it was only 4 per cent higher in summer in families in which the homemaker had finished eight grades or less.

Families without children increased their expenditures for dairy products in the summer more than did those with children. Those without children spent 31 per cent more per household and 22 per cent more per person in the summer. Those with children spent only 12 per cent more per household and 13 per cent more per person during the summer.

FAMILIES	AVERAGE EXPENSE PER WEEK			
	Per hld.		*Per person*	
	Sum.	*Win.*	*Sum.*	*Win.*
All families:				
No children ...	$4.25	$3.24	$1.83	$1.50
With children .	6.66	5.94	1.58	1.40
Two-adult families:				
No children ...	$3.68	$2.76	$1.88	$1.43
One child	4.54	4.06	1.55	1.46
Two children..	6.31	4.99	1.65	1.28
Three children.	9.15	8.03	1.93	1.64

Among the two-adult households, those without children also increased their expense more than did those with one or more children. All two-adult households spent 25 per cent per household and 23 per cent per person more for dairy products in summer, while those without children spent 33 per cent more per household or 31 per cent more per person. Those with two children increased their expense in summer 26 per cent per household and 29 per cent per person. The corresponding increases in families with three children were 14 and 18 per cent, respectively. The families with one child spent 12 per cent more per household or 6 per cent per person more in the summer than in the winter.

Total Quantities of Dairy Products Consumed

The 262 families studied in both summer and winter consumed 16 per cent more dairy products in terms of milk equivalent, which excluded butter, in summer. They used, on the average, 17.8 quarts in winter and 20.7 quarts in summer. They averaged 5.4 quarts per person in winter and 6.1 quarts in summer. (See table 22A.)

When families were classified according to amount spent for food at home during the week studied, all groups, with one exception, averaged higher consumption in summer, both per household and per person. The group spending from $30 to $39 per week for food averaged higher consumption per household during the winter than in the summer, but lower average consumption per person in the winter. This difference arose as a result of an increased number of persons in the families in winter. (See table 22A.)

Annual family income affected the quantities of dairy products used in much the same way as it affected total expenditures for dairy products. Although families at all income levels averaged higher quantities in the summer than in the winter, those with less than $2,000 and those with $4,000 and over used proportionally more in summer than did the families with incomes between $2,000 and $4,000. (See table 22A.)

Families with two, three, and four persons all used larger average quantities in summer than in winter both per household and per person. The greatest difference in average quantities used per household was in the families with four persons while the greatest difference per person was in families with only two persons. (See table 22A.)

Families without children increased their total consumption of dairy products (milk equivalent) in summer more than did those with children. The former increased the quantities used 21 per cent per household and the latter increased them only 13 per cent in summer. However, the additional average amounts used per person in the summer were proportionally about the same for both groups—14 per cent for those without and 13 per cent for those with children.

The consumption of two-adult households with no children was almost one fourth higher in summer than in winter, both per household and per person. Families with two children also used about one fourth more dairy products (milk equivalent) in summer than in winter. Families with only one child used about one sixth more per household in summer. Those with three children used only 4 per cent more per household and 7 per cent more per person in summer than they used in the winter.

NO. OF CHILDREN	AV. QUANTITIES PER WEEK (MILK EQUIVALENT)			
	Per hld.		*Per person*	
	Sum. *qts.*	*Win.* *qts.*	*Sum.* *qts.*	*Win.* *qts.*
All families:				
No children	13.88	11.34	5.99	5.23
With children	25.98	23.04	6.16	5.42
Two-adult families:				
No children	11.96	9.60	6.10	4.97
One child	16.95	14.56	5.73	5.24
Two children	24.15	19.73	6.31	5.07
Three children	32.87	31.74	6.95	6.50

Families of retired and unemployed persons averaged larger quantities of dairy products in winter than in summer. Families in all other occupational groups used more in summer than in winter. However, families of professional and managerial workers and those of craftsmen and operatives used proportionally more in summer than those in clerical and sales occupations. (See table 22A.)

Families of employed homemakers and of homemakers with more than an eighth-grade education used considerably more dairy products, on the average, in summer than in winter. Those of white homemakers used about one sixth more in summer but those of nonwhite homemakers used about one eighth less. (See table 22A.)

Major Dairy Products Consumed

The average quantities consumed per household, of 14 of the 25 dairy products studied in Sacramento, were higher during the week studied in summer than during the week studied in winter. The average quantities of seven were lower during summer and that of one was the same in both seasons. The average quantities used per household of three products were too small to discern differences. (See tables 23A, 24A.)

Of the 14 products which were used in larger quantities in the summer, the differences were significant in only three, that is, whole milk, ice cream, and cottage cheese, the first two being by far the most significant. In addition, the consumption of chocolate drink was somewhat higher in summer. The average amounts by which the summer consumption of the remaining products exceeded that of the winter were small. In no case did they exceed 0.05 pound per household.

The average consumption per household of nonfat milk (both fluid and dry), half-and-half, sour cream, canned infant formula, soft cheese, and butter was higher in summer. Of these, the greatest differences in amounts consumed were in fluid nonfat milk and half-and-half. The higher consumption of nonfat dry milk in winter was, in all probability, largely the result of a selling campaign which was carried on in the interval between the surveys.

Although families spent, on the average, 46 cents more per household for whole milk in summer, the proportion of the total expense for dairy products used for whole milk was approximately the same in both seasons, 48 per cent in summer and 47 per cent in winter. They also spent 41 cents more for ice cream in summer, but this expenditure increased the relative importance of ice cream in the total expense from almost 10 per cent in the winter to over 15 per cent in summer. (See table 24A.)

Fluid milk

Some kind of fluid milk was used by all but three households in summer and all but two in winter. The same families surveyed both seasons averaged 11.8 quarts in winter and 13.9 quarts in summer. They used, on the average, 3.6 quarts per person in winter and 4.1 quarts in summer. Their average expense for fluid milk was $2.47 per household or 74 cents per person in winter and $2.91 per household or 86 cents per person in summer. (See table 23A.)

The average quantities per household and per person as well as the average expense were higher in summer in all income classes. This was also true when families were grouped according to number of members, occupation of major earner, employment and education of the homemaker, and, with very few exceptions, weekly food expense and proportion of meals eaten away from home.

Families with children under 16 years and those without children under this age both used more fluid milk in summer than in winter. Those with children used about 2.5 quarts more per household; those without children, almost 1.5 quarts more. The families with children used 0.6 quart more per person in summer

Table 12. Uses of Whole Milk, Nonfat Milk, and Buttermilk During One Week in Summer and One Week in Winter, by the Same Households in Sacramento

Uses	Total used in each way		Per cent of households using				Average quantities per household			
			All households		Households using		All households		Households using	
	Summer	Winter	Summer	Winter	Summer	Winter	Summer	Winter	Summer	Winter
	per cent	per cent					qts.	qts.	qts.	qts.
All whole milk:										
All uses	100.0	100.0	96.2	97.3	100.0	100.0	12.57	10.44	13.07	10.73
As beverage	74.7	74.5	88.9	86.6	92.5	89.0	9.39	7.79	10.56	8.99
At the table	12.1	11.3	71.4	71.8	74.2	73.7	1.52	1.18	2.14	1.65
For infant feeding	2.7	2.2	4.6	3.4	4.8	3.5	0.33	0.23	7.27	6.74
In food preparation	9.7	11.1	67.2	76.3	69.8	78.4	1.22	1.16	1.82	1.52
Other uses	0.8	0.9	9.9	9.5	10.3	9.8	0.09	0.09	0.95	0.92
Nonfat milk:										
All uses	100.0	100.0	11.1	11.8	100.0	100.0	0.57	0.76	5.17	6.44
As beverage	88.7	93.5	10.7	10.7	96.6	90.3	0.51	0.71	4.75	6.66
At table	1.2	2.9	1.5	2.7	13.8	22.6	0.01	0.02	0.44	0.82
For infant feeding	4.7	...	0.4	...	3.4	...	0.03	...	7.00	...
In food preparation	0.4	0.2	2.7	2.7	24.1	22.6	0.03	0.03	1.07	0.96
Other uses	5.0	3.4	0.8	0.4	6.9	3.2	*	*	0.31	0.50
Buttermilk:										
All uses	100.0	100.0	20.2	19.5	100.0	100.0	0.41	0.40	2.00	2.04
As beverage	73.5	56.4	14.9	10.7	73.6	54.9	0.30	0.22	1.99	2.10
In food preparation	26.5	43.6	9.5	11.5	47.2	58.8	0.11	0.18	1.12	1.52

* Less than 0.005 quart.

and those without children, only 0.4 quart. Families with children increased their expense for fluid milk 49 cents per household or 12 cents per person in the summer; those without children, 34 cents per household or 11 cents per person. (See table 26A.)

Two-adult families with no children under 16 years used about 0.5 quart more per person in summer; those with one child, 0.25 quart more; and those with two children, almost 0.9 quart. On the other hand, the two-adult families with three children used 1.75 quarts less per household and almost 0.25 quart less per person in summer than in winter. (See table 27A.)

All whole milk

Whole milk of all kinds, including plain, extra-vitamin, and extra-fat milk, accounted for 90 per cent of all the fluid milk used in both summer and winter. Ninety-six per cent of the families used some kind of whole milk in summer and 97 per cent used it in winter. (See table 24A.)

Families used, on the average, 10.5 quarts per household in winter and 12.7 quarts in summer. Comparable quantities per person were 3.2 quarts and 3.7 quarts. Average expenditure was $2.22 per household in winter and $2.68 in summer, or 67 and 79 cents per person, respectively. (See table 23A.)

Since whole milk constituted such a large proportion of all fluid milk used, the quantities and expense in both summer and winter were similar to those of fluid milk when families were classified according to income and other characteristics.

Other fluid milk

Families averaged slightly smaller amounts of all fluid milk other than whole milk in summer. These products included nonfat milk, buttermilk, chocolate drink, yogurt, and goat milk. (See table 23A.)

Although the proportion of households using one or more of these products was slightly higher in summer than in winter, the average quantities used and the average expense per household were slightly smaller in summer. The average quantities per person and average expense per person were practically the same in both seasons. (See tables 23A, 24A.)

The average consumption of nonfat milk and the average expense, both per household and per person, were slightly higher in winter than in summer. On the other hand, the average quantity of chocolate drink used in summer, both per household and per person, was almost twice that used in winter. The consumption and expenditure for buttermilk were approximately the same in both seasons. (See tables 23A, 24A.)

Uses of Whole and Nonfat Milk and Buttermilk

The ways in which families used whole milk varied little in the two seasons when considered in terms of the proportions of the total which were used in the different ways. The only noticeable variation was in its usage in food preparation —11.1 per cent of the total in winter as compared with 9.7 per cent in the summer. The proportion of households using whole milk in food preparation was also somewhat higher in winter than in summer. (See table 12.)

As was the case with whole milk and buttermilk, the major use of nonfat milk during both seasons was as a beverage. The proportion of nonfat milk used this way was slightly higher in winter, that is, 93 per cent as compared with 89 per cent in summer. The average quantity used was about two fifths higher in winter. (See table 12.)

The proportion of families who used nonfat milk at the table was somewhat higher in winter and the average these families used was almost twice as high as in summer.

The proportion of buttermilk used as a beverage was 30 per cent higher in summer, while the proportion of all families in the study who used it in this way was almost 40 per cent higher. Also, more of the families who used buttermilk used it as a beverage in summer. On the other hand, more of it was used in food preparation in winter, 44 per cent as compared with 26 per cent in summer. The proportion of families who used it in this way and the average quantities used per household were also larger in winter. (See table 12.)

Use of Fluid Milk as a Beverage by Households

About the same proportion of fluid milk was used as a beverage in both seasons—76 per cent in winter and 77 per cent in summer. The proportions ranged from 70 per cent in the lowest to 80 per cent in the highest income groups in the summer and from 69 per cent to 78 per cent in the winter. Only 23 per cent of the milk used by families spending less than $10 a week for food was used as a beverage in the summer, but this group used 49 per cent of their milk in this way in the winter. The proportions used by families spending $10 or more for food ranged from 74 per cent to 79 per cent in the summer and from 70 per cent to 80 per cent in the winter.

The average quantities used per household and per person were both higher in summer than in winter. This was true of families in each income class although in some cases differences between summer and winter were small. Average quantities used per household in summer ranged from 7.4 quarts for families in the smallest income group to 12.9 quarts for those in the highest income class. In winter, the amounts used in the same categories ranged from 5.3 quarts to 10.4 quarts.

The average consumption per household of families with children under 16 years was 1.4 quarts higher in summer than in winter; that of families without children was only 0.6 quart higher in summer. These increases amounted to 0.38 quart per person for families with children and 0.55 quart for those without children.

Two-adult families with no children used, on the average, about 1 quart more fluid milk as a beverage in summer than in winter. Two-adult families with two children also increased their consumption per household and per person in summer. However, those with one child and those with three children averaged less per household and per person in summer.

FAMILIES	AV. WEEKLY CONSUMPTION OF FLUID MILK AS A BEVERAGE (QTS.) Per hld.			
	Per hld.		*Per person*	
	Sum.	*Win.*	*Sum.*	*Win.*
All families:	10.60	8.90	3.12	2.71
No children	5.94	4.31	2.53	1.98
With children	14.32	12.96	3.39	3.01
2-adult families:	8.15	7.04	2.92	2.57
No children	4.20	3.23	2.14	1.67
One child	7.67	7.81	2.59	2.81
Two children	14.14	11.14	3.69	2.86
Three children	17.70	20.95	3.74	4.72

Where Family Members Drank Milk

When the consumption habits of individual members of the families were studied it was found that 67 per cent of the family members drank milk only at home during the summer survey and 57 per cent during the winter survey. On the other hand the proportion who drank milk both at and away from home was higher in winter than in summer, that is, 15 per cent as compared with 7 per cent.

Quantities of Fluid Milk Used as a Beverage by Family Members

The average quantities of fluid milk used weekly as a beverage by all family members 1 year and over were 0.41 quart higher in summer than in winter and

0.43 quart higher when only persons drinking milk were considered.

Children from one to 12 years averaged slightly higher amounts in summer, and adults considerably more. However, adolescents, both boys and girls, averaged slightly higher amounts in winter.

FAMILY MEMBERS	AV. QUANTITIES (QTS.) FLUID MILK USED AS A BEVERAGE PER WEEK			
	All family members		*Family members using*	
	Sum.	*Win.*	*Sum.*	*Win.*
All family members	3.15	2.74	4.18	3.75
Children 1–12 yrs.	4.81	4.74	4.93	4.80
Adolesc. 13–20 yrs.	4.49	4.88	4.99	5.35
Girls	3.87	4.42	4.41	4.92
Boys	5.48	5.63	5.86	6.03
Adults	2.20	1.53	3.49	2.59
Women	1.59	1.03	2.70	1.91
Men	2.87	2.08	4.23	3.22

Children from one though nine years averaged larger quantities in summer. However, those from 10 to 12 years averaged 0.6 quart more per person in winter. Adolescents as a group used more in winter, but girls 13 to 15 years and boys 16 to 20 years used more in summer. All age groups of men and women averaged larger quantities in summer. Some of the group who drank milk both at and away from home averaged larger quantities in summer, others averaged more in winter. The groups who drank milk only at home averaged larger quantities in summer with the exception of children 10 to 12 years, girls 16 to 20, boys 13 to 15, and two of the older adult groups. (See table 25A.)

Family members who drank milk both at and away from home during the weeks of the surveys averaged considerably more in both seasons than did those who drank milk only at home. All persons one year and older who drank milk both at and away from home during the week studied averaged 5.9 quarts in summer and 5.3 quarts in winter. Those who drank milk only at home averaged almost 2 quarts less per person each season, 4.0 quarts in the summer and 3.3 quarts in winter.

Quite large proportions of all the individuals in the study drank small quantities of milk in both summer and winter. Forty per cent in summer and 47 per cent in winter drank less than 2 quarts during the weeks studied. These figures include persons who did not drink any milk at all. Ten per cent in summer and 11 per cent in winter drank 2 to 3 quarts; 12 per cent drank 3 to 4 quarts in summer; 14 per cent drank this much in the winter.

The proportions who drank 4 quarts or more were larger in summer. Although 28 per cent drank this much in the winter, almost 38 per cent drank 4 quarts or more in the summer.

Almost 14 per cent of the children 1 to 13 years drank less than 2 quarts during the week studied in winter, and 8 per cent drank less than this amount in summer. On the other hand, 56 per cent drank 4 quarts or more in winter, and 66 per cent did so in summer. Over one third (35 per cent) drank 6 quarts or more in both seasons.

About 18 per cent of the adolescent girls drank less than 2 quarts per week in winter, and 25 per cent drank less than this amount in summer. About 25 per cent drank 6 quarts or more in winter; 18 per cent drank this amount in summer. Almost 43 per cent drank 4 quarts or more in winter, but 55 per cent drank this much in the summer. About 67 per cent of the adolescent boys drank 4 quarts or more in winter and 61 per cent did so in summer. Forty per cent of them drank 6 quarts or more in winter, and 52 per cent drank that much in the summer.

Two thirds of the adult women drank less than 2 quarts per week in the summer and three fourths drank only that much in the winter. However, they increased their consumption considerably

Table 13. Uses of Half-and-Half, Cream, and Evaporated Milk During One Week in Summer and One Week in Winter, by the Same Households in Sacramento

Uses	Total used in each way		Per cent of households using				Average quantities per household			
			All households		Households using		All households		Households using	
	Summer	Winter	Summer	Winter	Summer	Winter	Summer	Winter	Summer	Winter
	per cent	per cent					lbs.	lbs.	lbs.	lbs.
Half-and-half:										
All uses	100.0	100.0	29.4	32.1	100.0	100.0	0.64	0.76	2.17	2.36
As beverage	8.3	12.1	1.1	1.9	3.9	6.0	0.05	0.09	4.64	4.81
At the table	80.5	77.1	27.9	31.3	94.8	97.6	0.51	0.58	1.85	1.87
In food preparation	10.9	10.0	6.5	6.9	22.1	21.4	0.07	0.08	1.07	1.10
Other uses	0.3	0.8	0.4	0.8	1.3	2.4	*	0.01	0.53	0.81
Cream:										
All uses	100.0	100.0	3.4	1.5	100.0	100.0	0.03	0.01	0.94	0.66
At the table	62.5	100.0	1.9	1.5	55.6	100.0	0.02	0.01	1.06	0.66
In food preparation	37.5	...	1.5	...	44.4	...	0.01	...	0.80	...
Evaporated milk:										
All uses	100.0	100.0	51.5	58.8	100.0	100.0	1.27	1.23	2.46	2.10
As beverage	5.7	9.3	1.5	5.3	3.0	9.1	0.07	0.11	4.76	2.15
At the table	36.5	37.2	35.9	37.4	69.6	63.6	0.46	0.46	1.29	1.23
In infant feeding	16.5	9.3	3.4	1.9	6.7	3.2	0.21	0.11	6.09	5.98
In food preparation	34.7	37.3	27.5	35.9	53.3	61.0	0.44	0.46	1.60	1.28
Other uses	6.6	6.9	6.5	7.6	12.6	13.0	0.08	0.08	1.28	1.11

* Less than 0.005 pound.

in summer. Only about 5 per cent drank 4 quarts or more in winter, but 16 per cent drank that much in summer. The proportion of adult men who drank less than 2 quarts per week was smaller than that of women in both seasons. Almost one half (48 per cent) drank less than that amount in the summer, and 56 per cent did so in winter. Eighteen per cent in the winter and 31 per cent in the summer drank 4 or more quarts.

Family Members Who Did Not Drink Milk

The proportion of all individuals who did not drink any milk during the week of the study was slightly larger in winter (26.8 per cent) than in summer (24.7 per cent). It did not differ greatly among children and adolescents, but tended to be slightly higher in summer. Seven per cent of those 10 to 12 years of age did not drink any milk during the summer survey. Over 10 per cent of the girls 13 to 20 years did not drink any milk in winter and 12 per cent did not drink any in summer. Only about 6 per cent of the boys of this age did not drink any milk.

The greatest differences in proportion of family members not drinking milk were among the adults. Almost 37 per cent did not drink any milk during summer, and 41 per cent did not drink any during winter. Forty-one per cent of the women and 32 per cent of the men fell in the former group, while 46 per cent of the women and 35 per cent of the men did not drink any milk during the winter.

Reasons for not drinking milk

Over two thirds of the men and women who drank no milk during the weeks of the two surveys gave two main reasons for this: (1) they did not like milk; and (2) they preferred some other beverage. Other, less important reasons given were that those queried believed milk to be fattening or too expensive. Almost one eighth said that they did not drink milk because they were on a diet prescribed by a physician.

REASON FOR NOT DRINKING MILK	PER CENT OF ADULTS GIVING REASONS FOR NOT DRINKING MILK		
	Men & women	*Women*	*Men*
Did not like	30.4	32.6	27.2
Preferred another beverage	38.4	34.1	44.6
Diet prescribed by a physician	11.6	12.1	10.9
Too fattening	8.5	11.4	4.3
Too expensive	3.6	3.0	4.3

Reasons for drinking milk

Adults who drank milk during the week of the winter survey were queried as to why they drank it. About 74 per cent of the men and 66 per cent of the women said they did so because they liked milk. This reason was given more often by adults from 21 to 49 years than by those 50 years or older.

Eleven per cent said they drank milk because they believed it was healthful. Over twice as many men as women gave this reason. About 2.5 per cent drank milk because they said they believed it aided in reducing. Over 3 per cent were on a diet that was prescribed by a physician and required milk. About 10 per cent either could not give any reason or the person interviewed did not know why other adults in the family drank milk.

Half-and-Half

Half-and-half was one of the few products families used in larger quantities in winter than in summer. It was relatively unimportant, however, as compared with fluid milk and some other dairy products, accounting for only 1.2 per cent of the total milk equivalent supplied by all dairy products in summer and 1.7 per cent in winter. In the summer, families, on the average, spent 3 per cent of their total expense for dairy products for half-and-half, and in the winter, 4.5 per cent. (See table 23A.)

Almost one third of the families studied used half-and-half in the winter, and about 29 per cent in the summer. All families surveyed averaged about 0.64 pound per household in summer and 0.76 pound in winter or 0.19 pound and 0.23 pound per person in the respective seasons. Families who used half-and-half averaged 2.2 pounds per household in summer and 2.3 pounds in winter. (See table 24A.)

The average expenditure per household for half-and-half was 18 cents in summer and 21 cents in winter, or 5 and 6 cents per person, respectively. (See table 23A.)

Families spending less than $30 per week for food and those spending $40 or more used larger average quantities and spent more for half-and-half in winter. Those spending from $30 to $40 per week consumed, on the average, about the same in both seasons.

Families with incomes less than $2,000 and those with incomes from $3,000 to $6,000 used more half-and-half, on the average, in winter. The group with incomes from $2,000 to $3,000 used slightly more and spent slightly more for it in the summer. Families with $6,000 or more income did not vary their consumption and expense with the seasons.

The average quantities used and the average expense were higher in the winter regardless of the number of persons in the household.

Families with children and those with no children under 16 years both averaged higher consumption and higher expense for half-and-half in the winter. Likewise, the two-adult families with one, two, or three children used more and spent more for half-and-half in winter. The two-adult families with no children averaged about the same quantities in both summer and winter. (See tables 26A, 27A.)

Most of the households who used half-and-half used it at the table, and over one fifth used it in food preparation. Over 77 per cent of the half-and-half was used at the table in winter and 80 per cent in summer. Use in food preparation accounted for 10 per cent of the total used in winter and almost 11 per cent in summer. (See table 13.)

Cream

In contrast to the higher consumption of half-and-half in winter than in summer, the consumption of cream by the families studied was about the same in both seasons. As with half-and-half, cream was relatively unimportant in both seasons when total consumption of dairy products was considered. (See table 23A.)

About 18 per cent of the families used some kind of cream in winter, and over 19 per cent used it in summer. The average quantity used per household was 0.16 pound in winter, 0.18 pound in summer. The average quantity per person was the same in both seasons—0.05 pound—as was average expense per household (12 cents) and per person (4 cents). (See tables 23A, 24A.)

With few exceptions, families at all levels of weekly food expense used more and spent more for cream in the summer than in the winter. Those spending $40 or more averaged higher quantities and higher expense in winter. Families with incomes less than $3,000 and with $6,000 and over used larger quantities and spent more per household and per person in summer. Those with incomes between $3,000 and $6,000 used more and spent more in winter.

Families with two and four persons used more cream in summer and spent more for it. Those with three persons used more per household in the winter, but the average quantity per person was the same in both seasons.

Families with children under 16 years used larger average quantities of cream per household and per person in the winter. Their expense per household was slightly higher in the winter, but the average expense per person was the same in summer and winter. (See table 26A.)

On the other hand, families without children averaged about 50 per cent more cream, both per household and per person, in the summer, and their expense for cream followed this same pattern. They used 0.14 pound in winter and 0.22 pound in summer, and spent 9 cents per household in winter and 14 cents in summer.

Two-adult households with no children and those with two and three children used considerably more cream per household and per person in summer. Families with one child, however, used considerably more in winter. (See table 27A.)

In winter all the table cream was used for the table. In summer over 62 per cent was used in this way and over 37 per cent was used in food preparation. However, less than 2 per cent of all the families used any table cream in winter, and only slightly over 3 per cent used any in summer. (See table 13.)

Evaporated Milk

The use of evaporated milk did not vary with season. About 59 per cent of the households used it in winter and 52 per cent in summer. The average quantity used per household was 1.27 pounds in summer and 1.23 pounds in winter. The average per person was 0.37 pound in both seasons. The average expense was 20 cents per household and 6 cents per person in both seasons. (See tables 23A, 24A.)

Families spending less than $20 and from $30 to $40 per week for food used more evaporated milk in winter, the other families used more in summer. Families with incomes between $3,000 and $6,000 used slightly more, on the average, in summer, while the families with less than $3,000 and with $6,000 and over used more in winter. Two- and three-person families used about the same average amounts in winter and summer, and those with four members used slightly more in summer.

Families with and without children under 16 years used practically the same quantities per household and per person in both seasons. Both groups spent practically the same per household and per person. (See table 26A.)

Two-adult families used slightly higher average quantities in summer. Only those with one child used a little more in winter. Expense varied little with the season. (See table 27A.)

Over 36 per cent of the evaporated milk was used at the table in summer, and 37 per cent was used in this way in winter. Almost 35 per cent was used in food preparation in summer, and over 37 per cent in winter. A somewhat slightly larger proportion of families used it in this way in winter. Since more families used evaporated milk in infant feeding in the summer, larger average quantities were used during that period. (See table 13.)

Condensed Milk, Dry Milk, and Infant Formula

This group of processed milks was used by more families and in larger quantities in the winter. Nine per cent of the families used one or more of these products in winter, and 6 per cent did so in summer. Although very small quantities were used, averages per household and per person in winter were twice as high as those in summer. The families also averaged twice as much expenditure per household in the winter, but the average expense per person was the same in both seasons. (See tables 23A, 24A.)

For the most part, the average consumption and expense were higher in the winter regardless of amount of family food expense, annual income, or number of persons in the household.

Families with children averaged very much higher consumption than did those without children. Both groups used more and spent more for these products in winter. All groups of two-adult families also used more in winter regardless of

Table 14. Uses of Cottage Cheese, American Cheddar Cheese, and Other Cheese During One Week in Summer and One Week in Winter, by the Same Households in Sacramento

Uses	Total used in each way		Per cent of households using				Average quantities per household			
			All households		Households using		All households		Households using	
	Summer	Winter	Summer	Winter	Summer	Winter	Summer	Winter	Summer	Winter
	per cent	per cent					lbs.	lbs.	lbs.	lbs.
Cottage cheese:										
All uses	100.0	100.0	74.4	67.6	100.0	100.0	1.15	0.97	1.54	1.44
At the table	34.3	36.5	35.5	33.6	47.7	49.7	0.39	0.35	1.11	1.05
In sandwiches	...	1.0	...	1.2	...	1.7	...	0.01	...	0.83
In food preparation	1.0	1.0	1.2	1.2	1.5	1.7	0.01	0.01	1.00	0.83
In salads	64.2	61.2	59.5	50.8	80.0	75.1	0.74	0.59	1.24	1.17
Other uses	0.5	0.3	1.5	0.8	2.1	1.1	0.01	*	0.41	0.38
American Cheddar cheese:										
All uses	100.0	100.0	68.3	64.9	100.0	100.0	0.58	0.55	0.85	0.85
At the table	16.3	21.7	18.7	24.8	27.4	38.2	0.10	0.12	0.51	0.48
In sandwiches	58.8	51.9	51.5	48.5	75.4	74.7	0.34	0.29	0.66	0.59
In food preparation	24.7	26.2	32.1	32.1	46.9	49.4	0.14	0.15	0.45	0.45
In salads	0.1	0.2	0.4	0.4	0.6	0.6	*	*	0.12	0.25
Other uses	0.1	...	0.4	...	0.6	...	*	...	0.12	...
Other hard cheese:										
All uses	100.0	100.0	15.3	14.9	100.0	100.0	0.11	0.09	0.69	0.60
At the table	33.7	38.6	5.0	6.9	32.5	46.2	0.04	0.03	0.72	0.50
In sandwiches	33.3	31.4	6.5	6.5	42.5	43.6	0.04	0.03	0.54	0.43
In food preparation	32.6	25.7	8.0	5.7	52.5	38.5	0.04	0.02	0.43	0.40
In salads	0.4	4.3	0.4	1.2	2.5	7.7	*	*	0.11	0.33
Cream cheese, cr. cheese spreads.										
All uses	100.0	100.0	15.3	20.6	100.0	100.0	0.05	0.08	0.35	0.37
At the table	50.6	44.1	6.9	9.5	45.0	46.3	0.03	0.03	0.39	0.35
In sandwiches	36.6	30.8	7.6	6.5	50.0	31.5	0.02	0.02	0.26	0.36
In food preparation	8.1	11.7	1.9	3.4	12.5	16.7	*	0.01	0.23	0.26
In salads	4.7	13.4	1.2	4.2	7.5	20.4	*	0.01	0.22	0.24

* Less than 0.005 pound.

the number of children. However, those with three children averaged higher consumption than other families in both seasons. (See tables 26A, 27A.)

Cheese

Cottage cheese

More families used cottage cheese in summer than in winter. They also averaged higher quantities and higher expense for it in summer. Almost 68 per cent of the families studied used cottage cheese in winter, while 74 per cent used it in summer. The average quantity used per household was almost one fifth higher in summer. All families averaged 0.97 pound during the week studied in the winter, and 1.15 pounds in the summer. This amounted to 0.29 pound per person in winter and 0.34 pound in summer. (See tables 23A, 24A.)

The expense for cottage cheese varied from 29 cents per family in winter to 34 cents in summer, and the expense per person was 9 cents and 10 cents, respectively.

Except for the group of families spending from $10 to $20 per week for food, families in the other food expense classes used more cottage cheese and spent more for it in the summer. This was also true of all income classes except those with incomes under $2,000. This group used more cottage cheese in the winter. The families also used more in the summer regardless of the number of persons in the family.

Families with children used about one fourth more cottage cheese in the summer. They averaged 1.01 pounds per household in winter, 1.26 pounds in summer. The averages per person were 0.24 and 0.30 pound, respectively. These families also spent more per household and per person in the summer. The families without children also used more and spent more per household in summer. However, the average quantities and expense per person of these families were the same in both seasons. (See table 26A.)

All two-adult households used more in the summer regardless of the number of children. The difference in quantities used in summer and winter by the households with no children was, however, very small. Households with one child averaged about 50 per cent more cottage cheese in the summer, those with two children averaged about 60 per cent more, and those with three children, 30 per cent. (See table 27A.)

Almost two thirds of the cottage cheese consumed was used in salad—61 per cent in the winter and 64 per cent in the summer. Almost 51 per cent of the families used it in this way in the winter, and almost 60 per cent in the summer. Families who used cottage cheese in salad used almost 1.2 pounds in winter and over that amount in summer. (See table 14.)

Over one third of the cottage cheese was used at the table, without previous preparation, by 34 per cent of the families in the winter and by almost 36 per cent in the summer. The average amount used by all families was 0.35 pound in winter and 0.39 pound in summer. Those who used it averaged about 1.1 pounds in both seasons. Only 1 per cent of the cottage cheese was used by about 1 per cent of the families in food preparation in both seasons.

American Cheddar cheese

The consumption of American Cheddar cheese did not show much seasonal variation. Almost two thirds of the families used it in winter, and somewhat over that proportion used it in summer. The average quantity and the average expense were slightly larger in summer, that is, 0.58 pound and 41 cents per household as contrasted with 0.55 pound and 40 cents in winter. The average quantities used and average expense per person were the same in both seasons. (See tables 23A, 24A.)

Families spending less than $10 and

more than $30 a week for food used slightly larger quantities of Cheddar cheese in the winter, while those spending from $10 to $30 used slightly more in the summer. Likewise, families with incomes of less than $2,000 and of $6,000 and over used more in winter, while the families with incomes between these extremes used more in summer. Families with two and four persons used more in summer and those with three persons used more in winter.

Families with children averaged the same quantities and expense per household and per person in both summer and winter. Those without children used slightly more and spent slightly more in the summer with the exception of their expense per person, which was the same in both seasons. (See table 26A.)

The two-adult households used more Cheddar cheese in the summer regardless of the number of children. Families with three children used more proportionally in the summer than did families with fewer children. Except for families with one child, all the two-adult group spent more in summer. (See table 27A.)

Over half of the Cheddar cheese used was used in sandwiches, 52 per cent in winter and 59 per cent in summer, by about half the families. The average amount used was 0.29 pound in winter, 0.34 pound in summer. Those who used Cheddar in sandwiches averaged 0.59 pound in winter and 0.66 pound in summer. (See table 14.)

The next most common use of Cheddar cheese was in food preparation, 26 per cent having been used this way in winter and 25 per cent in summer by 32 per cent of the families. Those who used it averaged 0.45 pound in both seasons. In the winter, 22 per cent of this kind of cheese was used at the table and in the summer, 16 per cent. Almost 25 per cent of the families served it in this way in winter, and 19 per cent in summer. The families using it averaged about 0.5 pound in both seasons.

Cheese other than cottage and American Cheddar

The use of both soft and hard cheese other than cottage cheese and American Cheddar did not vary much with the season. The proportions of families using these kinds of cheese were slightly higher in winter, but the average quantities used per household and per person were the same in both seasons. The average expense per household and per person was slightly higher in the winter. (See tables 23A, 24A.)

Families with children used larger average quantities of these kinds of cheese per household and per person in the winter. They also spent more for them. On the other hand, families without children used more and averaged higher expense in the summer.

Although the average consumption of two-adult families was the same in both summer and winter, those with no children used more in summer, while the groups with one, two, or three children used more of this kind of cheese in winter.

About 15 per cent of the families used hard cheese other than American Cheddar in both summer and winter. Over one third of it was used at the table—39 per cent in winter and 34 per cent in summer. One third was also used in sandwiches. Almost 26 per cent was used in food preparation in the winter and 33 per cent in the summer. (See table 14.)

In the winter, 44 per cent of the cream cheese and cream cheese spreads used was served at the table by about 10 per cent of the families, and in the summer, 51 per cent was used in this way by about 7 per cent of the families. Almost 31 per cent in winter and 37 per cent in summer was used in sandwiches. Almost 12 per cent in winter but only 8 per cent in summer was used in food preparation. Over 13 per cent in winter and almost 5 per cent in summer was used in salads. (See table 14.)

Frozen Desserts

As might be expected, the consumption of frozen desserts, including ice cream, ice milk, and sherbet, increased greatly in summer when the families studied used twice as much as they did in winter. On the average, they used 1 pound in winter and 2 pounds in summer per household. They averaged 0.32 pound per person in winter and 0.62 pound in summer. The average expense also almost doubled, from 48 cents per household in winter to 92 cents in summer. The expenditures per person increased from 15 cents in winter to 27 cents in summer. (See tables 23A, 24A.)

The consumption of frozen desserts was higher in summer because more families used them and because the families who used them used larger quantities. Almost one third more families used frozen desserts in summer than in winter—55 per cent in winter and 75 per cent in summer. The families who used these products averaged 2 pounds per family in winter and 2.75 pounds in summer.

The quantities consumed and the expense per household and per person were without exception higher in summer in all subclasses when families were classified by amount spent for food per week, by annual family income, by number of persons in the household, or by other categories, such as occupation of major earner and employment and education of homemaker.

Families with children and those without children under 16 years both increased the average quantities used and expense for frozen desserts in summer. The families with children increased the average quantity used per household about 75 per cent—from 1.3 to 2.3 pounds—but the families without children increased their consumption 125 per cent—from 0.8 pound to 1.8 pounds. The former increased the amount used per person from 0.31 pound to 0.54 pound, while the latter increased it from 0.37 to 0.79 pound. (See table 26A.)

The families with children spent, on the average, 59 cents per household (14 cents per person) for frozen desserts in winter and 98 cents (23 cents per person) in summer. The corresponding figures for families without children were 35 cents and 16 cents in winter and 84 cents and 36 cents in summer.

The two-adult households, on the average, more than doubled the quantity they used and expense per household and per person in summer. The smallest proportional increase was in families with one child, while the largest was in families with three children. The latter group averaged almost 1 pound per household in winter and 4.75 pounds in summer, and 0.2 pound per person in winter and 1 pound in summer. (See table 27A.)

Butter

There was little seasonal variation in the consumption of butter. The average quantities used were 0.48 pound in winter and 0.46 pound in summer, with corresponding average expense of 38 cents and 37 cents, respectively. It was used by 47 per cent of the families in winter and by 46 per cent in summer. The average quantities used and the average expense per person were the same in both seasons. (See tables 23A, 24A.)

The range in average quantities used and in expense per household from the lowest to the highest income group was larger in winter than in summer. In summer the average quantity used ranged from 0.27 pound in the lowest income group to 0.79 pound in the highest. In winter the range between these two income levels was from 0.31 to 0.69 pound. Average expense per household varied from 16 cents to 65 cents in summer and from 25 cents to 55 cents in winter.

Families who spent from $10 to $20 per week for food averaged 0.26 pound in summer and 0.31 pound in winter. Those spending $40 and over for food

Table 15. Uses of Butter and Oleomargarine During One Week in Summer and One Week in Winter, by the Same Households in Sacramento

Uses	Total used in each way		Per cent of households using				Average quantities per household			
			All households		Households using		All households		Households using	
	Summer	Winter	Summer	Winter	Summer	Winter	Summer	Winter	Summer	Winter
	per cent	per cent					lbs.	lbs.	lbs.	lbs.
Butter:										
All uses	100.0	100.0	46.2	47.3	100.0	100.0	0.46	0.48	0.98	1.01
At the table	63.6	68.3	45.4	46.2	98.3	97.6	0.29	0.33	0.64	0.71
In food preparation	24.7	25.7	27.5	26.7	59.5	56.5	0.12	0.12	0.41	0.29
In sandwiches	11.7	6.0	14.5	9.9	31.4	21.0	0.05	0.03	0.37	0.46
Oleomargarine:										
All uses	100.0	100.0	74.1	76.7	100.0	100.0	0.86	0.96	1.16	1.20
At the table	50.3	48.1	64.5	64.1	87.1	83.6	0.43	0.46	0.67	0.72
In food preparation	37.0	40.8	61.1	68.7	82.5	89.6	0.32	0.39	0.52	0.42
In sandwiches	12.7	11.1	26.3	25.2	35.6	32.8	0.11	0.11	0.41	0.57

used 0.86 pound in summer and 1.14 pounds in winter. Families of the same size averaged practically the same average quantity and the same expense per person in summer and in winter.

Families with children used more butter and spent more for it per household and per person in winter than in summer. On the other hand, the families without children used more and spent more in the summer. The differences in average quantities used and expense per person in the two seasons were slight in both groups. (See table 26A.)

The two-adult households with no children under 16 years and those with one child used about the same average quantities in summer and winter. Those with two and three children, especially the latter, used more per household and per person and spent more in winter. (See table 27A.)

About two thirds of all the butter used was used at the table, 68 per cent in winter and 64 per cent in summer. About 25 per cent was used in food preparation in both seasons. The proportion used in sandwiches was twice as high in summer—12 per cent as compared with 6 per cent in winter. The proportion of families using butter in sandwiches was somewhat higher in summer, but the proportions using it in other ways did not vary with the season. The average quantities used per household at the table and in food preparation were slightly higher in winter, but the amount used in sandwiches was slightly higher in summer. (See table 15.)

Uses of oleomargarine

The competing product, oleomargarine, was used in much the same way as butter. Over 50 per cent was used at the table in summer and 48 per cent in winter; 37 per cent was used in food preparation in summer and 41 per cent in winter. Almost 13 per cent was used in sandwiches in winter and 11 per cent in summer. The proportions of families who used oleomargarine in the different ways were practically the same in both seasons.

The average quantities of oleomargarine used per household at the table and in food preparation were slightly higher in winter, and the quantity used in sandwiches was the same in both seasons. (See table 15.)

Where Families Purchased Dairy Products

Whole milk

The proportion of families who had all their whole milk delivered by dairies was higher in summer than in winter. Almost 35 per cent had all their milk delivered in summer, but only 23.5 per cent had it all delivered in winter. The proportion of those who had some delivered by dairies and bought some at chain stores was three time larger in winter. The proportion having some delivered and buying some at independent stores was twice as large in winter. Only 2 per cent of the families in winter and less than 1 per cent in summer secured their whole milk from other sources. (See table 28A.)

Families who had all their milk delivered used over 2 quarts more per household in the summer—0.7 quart more per person. Those who secured all their milk at retail stores used about 1.7 quarts more per household and 0.45 quart more per person in the summer. Those who secured all their whole milk from chain stores used 3 quarts more in the summer, or 0.65 quart more per person. Those who bought at independent stores used, on the average, only 1.28 quarts more per household in the summer, and the same amount per person in both seasons. (See table 28A.)

In both seasons the proportions of families who did not have any whole milk delivered decreased as size of income class increased. The proportions who had all their milk delivered increased with increase in size of income class in winter, but the tendency was not so evident in summer. The proportion of the total quantity of whole milk which was used by families who did not have it delivered was higher in the winter at each income level except in the group with incomes of $3,000 to $4,000. The proportion of the total quantity which was used by families who had it all delivered was 50 per cent higher in the summer. The proportions were higher in most income and food expense groups. (See table 29A.)

Over 13 per cent of the families had 50 per cent or more of their whole milk delivered in the winter, but only 3 per cent had that much delivered in summer. While the proportion of families who had that proportion delivered in winter ranged from 11 to 18 per cent in the different income and food expense groups, only 5 per cent or less in any of those classes had that much delivered in summer. The proportion of all the whole milk used by families who had 50 per cent or more of their purchases delivered was almost 16 per cent in winter, but only 6 per cent in summer. (See table 29A.)

Only 2 to 3 per cent of the families had less than 50 per cent of their milk delivered, accounting for only 4.5 per cent of the total in winter and 6.3 per cent in summer.

Half-and-half

About 82 per cent of the families studied secured their half-and-half at retail stores during the week of the winter study, and about 78 per cent secured it from this source in the summer. The proportion of the total half-and-half used which was secured from this source was approximately the same in both seasons, that is, 84 per cent. The average quantity used per household was 2.4 pounds in winter and 2.3 pounds in summer. (See table 28A.)

In the winter, almost 15 per cent of the families and in summer, 21 per cent had all their half-and-half delivered. Half-and-half secured from this source accounted for 14 per cent of the total used in the winter and 16 per cent in the summer. The average quantity used per household was 2 pounds in winter and 1.7 pounds in summer. Very few families had some of their half-and-half delivered and purchased some at retail stores.

Cottage cheese

Over 93 per cent of the families purchased all their cottage cheese at retail stores in winter; 90 per cent did so in summer. Their purchases accounted for over 93 per cent of the cottage cheese used in the winter, and 89 per cent in the summer. The average amount used per household was 1.44 pounds in winter and 1.53 pounds in summer. (See table 28A.)

Only 6 per cent of the families in winter and 9 per cent in summer had all their cottage cheese delivered, accounting for 5.4 per cent of all the cottage cheese used in winter and 9.5 per cent of that used in summer. The average amounts used by families who had all their cottage cheese delivered were 1.37 pounds in winter and 1.59 pounds in summer.

Butter

The proportion of the families who bought all their butter at retail stores was slightly higher in winter than in summer, 97 per cent as compared with 93 per cent. These purchases accounted for 95 per cent of the butter used in winter and for 91 per cent of that used in summer. The average amounts used by these families were practically the same in both seasons. (See table 28A.)

In winter, less than 2 per cent of the families had all their butter delivered; in summer, about 4 per cent did so. The former used less than 1 per cent and the latter, almost 4 per cent of the total butter used. Their consumption per household was 1 pound in winter and 0.9 pound in summer.

Relation of Visits to Grocery Stores to Deliveries by Dairies

There was a definite relationship between the number of visits made by families to grocery stores during the week studied in the winter and the number of dairy deliveries they used.

Of the families who did not go to a grocery store at all during the week, or who went only once, over one fifth had no dairy products delivered; of those who went three times, almost three fifths had no deliveries; and of those who went five or six times, four fifths had no dairy products delivered.

NO. VISITS TO STORE (WINTER)	*Per cent of hlds.*	PER CENT WITH SPECIFIC NUMBER OF DELIVERIES PER WEEK *None*	*Three*	*Four*
None or one	6.2	42.1	31.6	21.1
Two	13.8	47.6	23.8	28.6
Three	16.7	56.9	13.7	27.5
Four	12.5	55.3	18.4	26.3
Five–six	11.8	80.6	5.6	11.1
Seven	39.0	65.5	9.2	23.5

The proportions of families who had any dairy products delivered were largest among families who went to grocery stores least often and smallest among those who went most often. Of those who went to the store seven times during the week, over one third had some dairy products delivered, while only slightly over half of those who went to the store twice had any products delivered.

Dairy Products in the Diet

The importance of dairy products in the diets of the Sacramento families was studied in the same manner as that described for the Oakland and Los Angeles families (pp. 57–59). The relative importance of dairy products in the two seasons was determined by comparing the extent to which the nutrients in the products consumed met the standards recommended by the National Research Council.

Since larger quantities of dairy products, in terms of milk equivalent, were used in the summer than in the winter, the proportions of the amounts recommended for each of the nutrients which were provided by dairy products were higher in the summer. Because much of the increased consumption of dairy products was in the form of whole milk, the differences in proportions of recommended quantities provided in summer and winter were greater for calcium and riboflavin then for other nutrients. (See table 30A.)

In the case of calcium, the dairy products consumed in the summer provided 100 per cent of the total amount recommended.

PER CENT OF RECOMMENDED ALLOWANCES PROVIDED BY DAIRY PRODUCTS CONSUMED BY ALL FAMILIES

NUTRIENT	*Summer*	*Winter*
Calories	28.3	24.5
Protein	49.6	43.6
Calcium	100.5	88.8
Riboflavin	87.2	71.5
Vitamin A	39.7	35.0
Thiamin	20.9	18.1
Ascorbic acid	13.6	11.7
Iron	10.0	8.7
Niacin	5.5	4.8

The households studied spent 21.1 per cent of their food dollar for dairy products in the summer and 19.7 per cent in the winter. The proportions of the recommended amounts of calories, protein, calcium, vitamin A, and riboflavin provided by dairy products in the diets of these families exceeded in both seasons, and by considerable amounts, the proportions of the food dollar spent for dairy products. The proportions of thiamin provided in both seasons were practically the same as proportions for expense. Since dairy products are less important as sources of iron, niacin, and ascorbic acid, the proportions of these nutrients provided by dairy products in both summer and winter were less than the proportions of food expense used for them. (See table 31A.)

In both seasons, families spent 52 per cent of the total expense for dairy products for fluid milk, most of which was whole milk. The fluid milk provided 55 per cent of the total calories supplied by dairy products in the winter and 56 per cent of those supplied in the summer. It provided even higher proportions of the other nutrients in both summer and winter except in the case of vitamin A. Fluid milk provided almost 44 per cent of the total vitamin A supplied by dairy products in winter and 46 per cent of that in summer.

The proportions of the total of each nutrient which were provided by the other individual dairy products were less than 10 per cent in most cases. Frozen desserts provided 12.5 per cent of the total calories in all dairy products consumed in the summer and 7.5 per cent in the winter. Butter provided 10 per cent of the total calories supplied by dairy products in the summer and 12 per cent in the winter. Cottage cheese provided over 10 per cent of the total protein in both seasons. (See table 31A.)

Adequacy of quantities of dairy products consumed

Almost 78 per cent of the families in summer and almost 74 per cent of the families in winter consumed amounts of dairy products equal to or greater than those suggested as desirable by nutritionists. (See pp. 58–59.)

In summer, almost 19 per cent of the families used quantities twice as large or more than twice as large as suggested. Only 11 per cent used this much in the winter. Almost one fifth in the winter and almost one fourth in the summer used from 50 to 100 per cent more than the suggested quantities.

A very large proportion of the families who used 50 per cent or more above the suggested quantities in both summer and winter included two persons 21 years or over and no others. This group constituted 29 per cent of the total group studied.

Almost 62 per cent of the same families interviewed in both seasons used, during both weeks they were surveyed, quantities equal to or greater than those suggested. Many of these families used much higher quantities in the summer. On the other hand, only 11 per cent of the families used less than the suggested quantities in both summer and winter. Although they consumed less than the suggested amounts, their consumption was not so far below these amounts in summer as in winter. Some families (11.5 per cent) used more than the suggested quantities in winter, but less than these amounts in summer. The remainder (16 per cent) consumed as much as or more than the suggested quantities in the summer but less in the winter.

HOUSEHOLDS THAT CONSUMED QUANTITIES OF DAIRY PRODUCTS EQUAL TO AND ABOVE OR LESS THAN SUGGESTED QUANTITIES

	Summer *per cent*	*Winter* *per cent*
Equal to and above suggested amounts:		
All households	77.7	73.6
0–24.9% above	15.7	25.3
25–49.9% above	20.6	17.6
50–99.9% above	22.7	19.5
100–199.9%	15.2	10.0
200% or more above	3.5	1.2
Below suggested amounts:		
All households	22.3	26.4
0.1–24.9% below	14.0	16.2
25–49.9% below	5.7	6.4
50% or more below	1.6	3.8

When families were grouped according to composition, the proportions who consumed the suggested quantities or more were higher in summer in all groups except two. The exceptions were families with two persons 21 years or over with one child under 13 years, and those with one person 21 years or over with one or more children or adolescents. The former group constituted about 10 per cent and the latter about 5 per cent of all families.

HOUSEHOLDS	PROPORTIONS USING QUANTITIES AS LARGE AS OR LARGER THAN SUGGESTED QUANTITIES	
	Summer *per cent*	*Winter* *per cent*
Two adults:		
No others	82.9	75.6
1 child	70.4	79.3
2 or more children	74.6	69.7
1 or more adolesc. with or without children	73.3	65.9
1 adult and 1 or more children or adolesc.	76.9	90.9
3 adults with or without children or adolesc.	80.6	78.6
4, 5, or 6 adults with or without children or adolescents	80.0	58.3

From 24 to 52 per cent in summer and from 32 to 67 per cent in winter who consumed 25 per cent or more above the suggested amounts were families with two adults alone. In the summer, 19 to 50 per cent and in the winter, 20 to 29 per cent of the families whose consumption was 25 per cent or more below the suggested amounts were families of adults with two or more children or with one or more adolescents, with or without children under 12 years.

SUMMARY

Expenditures for Dairy Products

Families, on the average, spent about one fifth of their food dollar for dairy products during the weeks of the study in Oakland, Los Angeles, and Sacramento. For this expenditure they received much more than one fifth of the recommended amounts of several important nutrients, especially protein, calcium, and riboflavin.

The average expense per household per week for all dairy products was $3.84 in Oakland, $4.33 in Los Angeles, $4.74 in winter in Sacramento and $5.60 in the summer. The average expenditure per person varied from $1.31 to $1.66. The latter expense was for the week of the summer study in Sacramento.

Quantities Consumed

Families averaged from 14.5 to 20.7 quarts of dairy products in terms of milk equivalent (excluding butter) during the weeks studied. The same families in Sacramento used about one sixth more in summer than in winter. The average amounts used per person per week varied from 4.9 to 6.1 quarts, the largest consumption per person having been in summer in Sacramento.

The season affected considerably the total consumption of dairy products in Sacramento. The average quantities used, by the same families, of 14 of the 25 dairy products studied were larger in summer than in winter. The higher consumption of whole milk and ice cream in the summer was particularly significant.

Fluid Milk

Almost all families used some fluid milk during the week studied. The average amounts used varied from 10.1 quarts (Oakland) to 14 quarts (summer in Sacramento). The average amounts per person varied from 3.5 to 4.1 quarts per week. In Sacramento the average amount used per person was one-half quart larger in summer than in winter.

Over half the total expenditure for dairy products was for fluid milk which supplied more than two thirds of the total milk equivalent used. Fluid whole milk was by far the most important, accounting for 91 per cent of the money spent for fluid milk.

About three fourths of the fluid milk was used as a beverage. However, 21 to 27 per cent of the individuals in the study did not drink any milk during the weeks studied. Thirty seven per cent of the persons 21 years and over in Oakland, 31 per cent in Los Angeles, 27 per cent in Sacramento in winter and 25 per cent in the summer did not drink any milk. The proportions of women who did not drink milk were higher than those of men. A dislike for milk and/or preference for some other beverage were given by about 70 per cent of the adults in Sacramento as reasons for not drinking milk.

The effect of the non-milk drinkers on the average amount of milk used as a beverage is shown by the fact that, when all family members were considered, the average amount used in this way per person was about 1 quart less in each of the individual surveys than the average used by the persons who drank milk.

Many persons drank comparatively small quantities of milk during the weeks studied. This was especially true of adults since almost two thirds of them drank either none or less than 2 quarts per week.

Half-and-Half and Cream

Less than one third of the families used half-and-half, and smaller proportions used any kind of cream. The average quantity of half-and-half used per household was about three times as large as the average quantity of all kinds of cream combined.

About four fifths of the half-and-half was used at the table, in tea and coffee and on cereal.

Evaporated Milk

From 37 to 59 per cent of the families used evaporated milk. The average amounts used per family varied from 0.9 to 1.3 pounds per week. Over one fifth of the evaporated milk was used in food preparation and one third was used at the table. From 10 to 24 per cent was used in infant feeding.

Cheese

Cottage cheese was used by 59 to 74 per cent of the families, the average amounts used per family varying from 0.7 to 1.2 pounds per week. The proportion of families studied in Sacramento who used cottage cheese in summer was larger than the proportion of the same families who used it in winter. Their average consumption was about 1 pound per family in winter and 1.2 pounds in summer. About half the cottage cheese used was used in salad, and the other half was used at the table. Very little was used in food preparation.

From 65 to 70 per cent of the families used American Cheddar cheese. The average amount used was about 0.50 pound per family. Over half of it was used in sandwiches, about one fourth at the table, and about one fifth in food preparation.

Frozen Desserts

About half the families in Oakland and Los Angeles used frozen desserts, mostly ice cream. About 55 per cent of the Sacramento families used these products in winter, and 75 per cent used them in summer. The average amount used per family was about 0.8 pound in Oakland and Los Angeles. In Sacramento the families averaged 1.1 pounds in the winter and 2.1 pounds in the summer.

Butter

Over half of the families in Oakland and Los Angeles and slightly less than half in Sacramento used butter during the weeks of the surveys. The average amount used per family was approximately 0.50 pound for each of the groups studied.

Where Families Purchased Dairy Products

From 28 to 35 per cent of the families had all their whole milk delivered by dairies, and from 49 to 59 per cent purchased all of it at retail stores. Families who had some whole milk delivered and who bought some of it at retail stores used higher average quantities per household than did other families.

From 14 to 34 per cent of the families had all their half-and-half delivered, while from 62 to 82 per cent bought all of it at retail stores. From 78 to 93 per cent secured all their cottage cheese, and 82 to 97 per cent all their butter, from retail stores.

Dairy Products in the Diet

As indicated above, dairy products were an important source of some valuable nutrients. Depending upon the area and the season, it was estimated that dairy products provided 40 to 50 per cent of the amounts of protein recommended by the National Research Council, 84 to 100 per cent of the calcium, 71 to 87 per cent of the riboflavin, and lesser proportions of other nutrients.

When amounts of dairy products suggested as desirable by nutritionists were compared with the amounts actually used by families during the week, it was found that almost two thirds of the families in Oakland and three fourths of those in Los Angeles consumed as much as or more than the amounts suggested. In Sacramento, 74 per cent of the families used as much as or more in winter. Because they consumed more dairy products, particularly milk, in summer, the proportion of the suggested amounts increased to 78 per cent.

About 62 per cent of the families in Sacramento used as much as or more than the suggested quantities in both summer and winter, while 11 per cent used less than these amounts in both seasons. About 16 per cent varied their consumption so that they consumed as much as or more than the amounts suggested in the summer, but less than the suggested amounts in the winter. About 11 per cent used as much as or more than recommended in winter, but not so much in the summer.

ACKNOWLEDGMENTS

The author wishes to express appreciation for the valuable assistance of Professor George Kuznets of the Department of Agricultural Economics and the Giannini Foundation, who drew the samples and made many helpful suggestions regarding other parts of the study.

Miss Minnie McIntosh of the Institute of Home Economics, United States Department of Agriculture, supervised the field workers in Oakland and Los Angeles.

APPENDIX A

Table 1A. CHARACTERISTICS OF HOUSEHOLDS STUDIED: Distribution of Households Classified by Number of 21-Meal-Equivalent Persons with Average Number of Persons per Household and Mean Annual Family Income for Each Class in Oakland, Los Angeles, and Sacramento

Number of 21-meal-equivalent persons	Oakland				Los Angeles				Sacramento*		
	Households		Av. no. 21-m-e persons	Mean family income †	Households		Av. no. 21-m-e persons	Mean family income †	Households		Av. no. 21-m-e persons
	no.	per cent			no.	per cent			no.	per cent	
All households	424	100.0	2.93	$4,203	513	100.0	2.98	$4,333	262	100.0	3.38
One (1.45 or less)	21	4.9	1.27	5,701	15	2.9	1.30	5,617	3	1.2	1.22
Two (1.46–2.45)	169	39.9	1.92	3,901	193	37.6	1.92	4,041	79	30.2	1.98
Three (2.46–3.45)	107	25.2	2.86	4,375	149	29.0	2.92	4,446	71	27.1	2.93
Four (3.46–4.45)	75	17.7	3.90	4,072	94	18.4	3.87	4,329	59	22.5	3.92
Five (4.46–5.45)	29	6.8	4.91	4,834	39	7.6	4.90	4,624	26	9.9	4.85
Six (5.46–6.45)	14	3.3	5.89	3,829	15	2.9	5.89	4,573	14	5.3	5.93
Seven (6.46–7.45)	6	1.4	6.94	3,958	5	1.0	6.59	3,793	4	1.5	6.97
Eight (7.46–8.45)	2	0.5	7.81	2,869	1	0.2	8.00	....	4	1.5	8.00
Nine (8.46) and over	1	0.3	9.00	4,809	2	0.4	9.50	7,807	2	0.8	9.45

* Data from summer survey in Sacramento—the same households as in winter survey.

† Income data are for those families who reported exact income—366 in Oakland and 375 in Los Angeles.

Table 2A. CHARACTERISTICS OF HOUSEHOLDS STUDIED: Average Food Expense per Person During One Week, Classified by Number of 21-Meal-Equivalent Persons and Annual Family Income, in Sacramento*

Number of 21-meal-equivalent persons	Annual family income																	
	All incomes		Less than $2,000		$2,000–2,999		$3,000–3,999		$4,000–4,999		$5,000 5,999		$6,000–7,499		$7,500–9,900		$10,000 and over	
	no.	av. per person per week	no.	av. per person per week	no.	av. per person per week	no.	av. per person per week	no.	av. per person per week	no.	av. per person per week	no.	av. per person per week	no.	av. per person per week	no.	av. per person per week
All classes.	253	$ 8.45	20	$7.36	29	$7.87	69	$7.80	42	$7.79	37	$ 8.64	30	$10.28	14	$ 9.44	12	$11.41
One (1.45 or less).	3	14.44	. .	. . . .	. .	. . . .	. .	. . . .	. .	. . . .	1	12.09	1	16.94	. .	. . . .	1	14.29
Two (1.46–2.45).	73	9.77	15	7.85	15	8.95	20	9.73	7	9.30	6	11.51	5	13.30	3	11.42	2	15.75
Three (2.46–3.45).	69	9.21	4	5.71	7	8.02	18	8.39	14	8.86	8	9.78	12	11.83	5	10.35	1	9.36
Four (3.46–4.45).	58	7.28	. .	. . . .	4	5.68	19	6.69	12	6.62	12	7.87	4	7.15	3	7.79	4	11.65
Five (4.46–5.45).	26	7.01	1	6.57	1	5.01	8	6.13	3	6.78	4	7.47	5	8.13	2	7.05	2	8.52
Six (5.46) or more.	24	5.90	. .	. . . .	2	5.03	4	4.11	6	6.41	6	5.98	3	4.58	1	8.68	2	9.17

* Summer survey; same households as in winter survey, excluding five families who did not report income and four families who did not report food expense.

Table 3A. CHARACTERISTICS OF HOUSEHOLDS: Characteristics of 262 Households Interviewed in both Summer and Winter in Sacramento

Class	Summer			Winter		
	No.	Per cent	Av. no. 21-meal-equiv. persons	No.	Per cent	Av. no. 21-meal-equiv. persons
Annual family income:						
Less than $2,000	21	8.0	2.36	19	7.3	2.36
$2,000–2,999	28	10.7	2.81	27	10.3	2.78
$3,000–3,999	69	26.3	3.40	60	22.9	3.42
$4,000–5,999	81	30.9	3.74	82	31.3	3.43
$6,000 and over	57	21.8	3.61	66	25.2	3.65
No report	6	2.3	2.58	8	3.0	2.87
Median*	$4,014			$4,060		
Number persons in household:						
All households	262	100.0	3.38	262	100.0	3.32
Two	79	39.9	1.98	93	35.5	1.98
Three	71	25.2	2.93	57	21.7	2.88
Four	59	17.7	3.92	56	21.4	3.91
All other	53	17.2	5.50	56	21.4	5.40
Weekly food expense:						
Less than $10	3	3.1	2.24	4	1.5	2.09
$10–19.99	71	41.0	2.52	93	35.5	2.43
$20–29.99	96	37.7	3.23	98	37.4	3.34
$30–39.99	56	10.8	3.83	42	16.0	4.50
$40 and over	32	5.0	5.23	23	8.8	4.94
No report	4	2.4	2.33	8	0.8	2.69
Meals away from home (per cent):						
Less than 10	193	73.6	3.56	177	67.6	3.58
10–19	47	17.9	3.01	52	19.8	2.95
20–29	13	5.0	2.85	28	10.7	2.59
30–39	7	2.7	2.64	5	1.9	1.91
40–52.4	2	0.8	1.38	..	....	....
Occupation of major earner:						
Professional and managerial	76	29.0	3.57	82	31.3	3.49
Clerical and sales	49	18.7	3.50	46	17.6	3.26
Craftsmen and operatives	76	29.0	3.65	70	26.7	3.64
Other occupations	36	13.7	3.10	37	14.1	3.13
Retired, unemployed, etc.	25	9.6	2.19	27	10.3	2.35
Employment of homemaker:						
Employed	68	26.0	3.23	76	29.0	3.03
Not employed	194	74.0	3.44	186	71.0	3.44
Education of homemaker:						
Eighth grade or less	46	17.5	2.86	44	16.8	2.87
Some high school	36	14.9	3.89	48	18.3	3.45
High school graduate	103	39.3	3.27	96	36.6	3.26
Some college	50	19.1	3.69	51	19.5	3.62
College graduate	24	9.2	3.43	22	8.4	3.49
None and no report	..	....	....	1	0.4	3.00
Color of homemaker:						
White	252	96.2	3.37	252	96.2	3.28
Nonwhite	10	3.8	3.79	10	3.8	4.54
Households with children under 16 years	147	56.1	4.22	145	55.3	4.25
Households without children under 16 years	115	43.9	2.32	117	44.7	2.17
Households with two adults and:						
No children under 16 years	79	48.5	1.96	89	51.7	1.93
One child under 16 years	35	21.5	2.96	33	19.2	2.78
Two children under 16 years	39	23.9	3.83	39	23.7	3.89
Three children under 16 years	10	6.1	4.73	11	6.4	4.88

* Calculated from distribution of families according to income class.

Table 4A. CHARACTERISTICS OF HOUSEHOLDS STUDIED: Distribution of Households Classified by Occupation of Major Earner with Average Number of Persons per Household and Mean Annual Family Income for Each Class, in Oakland and Los Angeles

Occupation of major earner*	Oakland					Los Angeles				
	Households		Av. no. 21-m-e persons	Mean family income†		Households		Av. no. 21-m-e persons	Mean family income†	
	no.	per cent		Per household	Per person	no.	per cent		Per household	Per person
All households	424	100.0	2.95	$4,203	$1,422	513	100.0	2.98	$4,333	$1,451
Group I	112	26.4	2.78	5,747	2,077	182	35.5	2.88	5,531	1,923
Professional and technical workers	39	9.2	2.75	6,273		78	15.2	2.84	5,527	
Managers and proprietors	73	17.2	2.80	5.452		104	20.3	2.92	5,534	
Group II	81	19.1	2.66	4,371	1,614	67	13.1	2.84	4,635	1,620
Clerical workers	42	9.9	2.69	4,190		32	6.2	2.82	3,897	
Sales workers	39	9.2	2.63	4,551		35	6.8	2.87	5,513	
Group III	126	29.7	3.18	3,825	1,201	152	29.6	3.35	3,962	1,180
Craftsmen	70	16.5	3.16	4,038		88	17.1	3.38	4,321	
Operatives	56	13.2	3.21	3,562		64	12.5	3.31	3,472	
Group IV	64	15.1	3.14	3,198	966	60	11.7	3.03	3,533	1,217
Farmers	...	...	...	....		1	0.2	2.00	1,809	
Domestic service workers	4	0.9	1.79	2,024		1	0.2	3.19	5,063	
Service workers	33	7.8	3.15	3,303		35	6.8	2.80	3,500	
Laborers	27	6.4	3.33	3,223		23	4.5	3.42	3,600	
Group V	41	9.7	2.71	2,733	1,038	52	10.1	2.35	2,504	1,037
Retired persons	32	7.5	2.68	2,758		49	9.5	2.35	2,475	
Unemployed persons	8	1.9	2.68	2,177		1	0.2	2.00	1,620	
Occupation not reported	1	0.3	3.76	5,968		2	0.4	2.38	4,462	

* Occupations classified according to: 1950 Census of Population Alphabetical Index of Occupations and Industries, Revised Edition, U. S. Department of Commerce, Bureau of the Census.

† Based on 366 households in Oakland and 375 in Los Angeles who reported exact annual family money income.

Table 5A. CHARACTERISTICS OF HOUSEHOLDS STUDIED: Distribution of Households Classified by Education of Homemaker with Average Number of Persons per Household and Mean Annual Family Income for Each Class, in Oakland and Los Angeles

Education of homemaker	Oakland					Los Angeles				
	Households		Av. no. 21-m-e persons	Mean family income*		Households		Av. no. 21-m-e persons	Mean family income*	
	no.	per cent		Per household	Per person	no.	per cent		Per household	Per person
All households	424	100.0	2.93	$4,203	$1,422	513	100.0	2.98	$4,333	$1,451
Eighth grade or less	80	18.9	2.90	3,497	1,184	75	14.6	3.11	3,526	1,160
Some high school	98	23.1	3.02	3,558	1,210	103	20.1	2.99	3,679	1,232
High school graduate	169	39.9	2.94	4,408	1,476	205	39.9	3.01	4,303	1,410
Some college	46	10.8	2.63	4,751	1,800	78	15.2	2.87	5,465	1,855
College graduate	25	5.9	3.26	6,698	1,839	42	8.2	2.86	5,281	1,914
None and no report	6	1.4	2.25	4,864	2,068	10	2.0	2.58	3,870	1,484

* Income data are for those families who reported exact money incomes—366 in Oakland and 375 in Los Angeles.

Table 6A. TOTAL CONSUMPTION OF AND EXPENSE FOR DAIRY PRODUCTS: Average Quantities Used (Milk Equivalent) and Expense per Household and per Person During One Week, in Oakland and Los Angeles

Classes	Average quantities (milk equivalent)				Average expense			
	Per household		Per person		Per household		Per person	
	Oak.	L. A.	Oak.	L. A.	Oak.	L. A.	Oak.	L. A.
	qts.	qts.	qts.	qts.				
All households	14.46	16.62	4.94	5.58	$3.84	$4.33	$1.31	$1.45
Annual family income:								
Under $2,000	10.78	12.21	4.32	5.43	2.44	3.05	0.98	1.36
$2,000–2,999	12.74	14.39	4.46	5.23	3.36	3.49	1.17	1.27
$3,000–3,999	15.78	17.15	4.89	5.31	3.84	4.32	1.19	1.34
$4,000–5,999	15.18	18.06	5.15	5.86	4.15	4.68	1.41	1.52
$6,000 and over	14.23	17.80	5.20	5.91	4.31	5.03	1.57	1.67
No report	15.47	15.42	5.42	5.33	4.35	4.21	1.53	1.46
Annual income per person:								
Under $500	19.09	15.59	4.69	5.03	4.09	3.64	1.01	1.17
$500–999	18.08	20.35	4.84	5.45	4.34	4.83	1.16	1.30
$1,000–1,499	15.03	17.85	5.00	5.68	3.88	4.42	1.29	1.41
$1,500–1,999	11.37	14.31	4.68	5.62	3.18	3.82	1.31	1.50
$2,000–2,999	11.23	12.91	4.92	5.92	3.49	3.82	1.53	1.75
$3,000 and over	11.20	12.19	5.48	6.35	3.40	3.59	1.66	1.87
No report	14.52	16.21	5.30	5.50	4.20	4.53	1.53	1.54
Number of persons in household:								
Two	8.91	11.03	4.65	5.74	2.63	3.08	1.37	1.60
Three	14.41	16.88	5.03	5.79	3.89	4.36	1.36	1.49
Four	20.01	20.66	5.13	5.34	5.00	5.43	1.28	1.40
All other	21.70	25.23	4.98	5.41	5.39	6.07	1.24	1.30
Food expense:								
Under $10	6.50	9.32	2.74	4.97	1.52	2.09	0.64	1.12
$10–19.99	10.14	12.56	4.37	5.25	2.66	3.24	1.14	1.35
$20–29.99	16.15	18.24	5.28	5.72	4.28	4.63	1.40	1.45
$30–39.99	20.54	23.83	5.28	5.93	5.74	6.60	1.48	1.64

$40 and over	27.34	28.32	5.47	5.98	7.01	7.99	1.40	1.69
No report	17.93	13.88	5.51	4.54	5.16	3.94	1.58	1.29
Meals away from home (per cent):								
Less than 10	16.22	18.31	4.80	5.37	4.17	4.63	1.23	1.36
10–19	14.18	15.62	5.24	5.75	3.84	4.19	1.42	1.54
20–29	10.10	13.48	5.16	5.97	2.99	3.83	1.53	1.69
30–39	8.09	13.20	4.53	6.53	2.58	3.44	1.45	1.70
40–52.4	8.12	11.87	5.74	7.37	2.36	3.26	1.67	2.03
Occupation of major earner:								
Professional and managerial	14.34	17.68	5.15	6.13	4.06	4.91	1.46	1.70
Clerical and sales	13.51	15.32	5.08	5.39	3.62	3.93	1.36	1.38
Craftsmen and operatives	15.86	17.40	4.98	5.20	4.14	4.28	1.30	1.28
Other occupations	13.92	16.69	4.43	5.50	3.42	4.19	1.09	1.38
Retired, unemployed, etc.	13.23	12.25	4.89	5.22	3.41	3.10	1.26	1.32
Employment of homemaker:								
Employed	11.74	14.92	4.93	5.67	3.18	4.02	1.34	1.53
Not employed	15.45	17.03	4.95	5.55	4.08	4.39	1.31	1.43
No report	....	17.45	...	10.48	...	6.47	...	3.89
Education of homemaker:								
Eighth grade or less	13.24	16.32	4.56	5.24	3.15	4.11	1.09	1.32
Some high school	14.32	16.77	4.74	5.61	3.75	4.26	1.24	1.42
High school graduate	14.96	16.92	5.09	5.62	4.04	4.44	1.37	1.47
Some college	14.16	16.26	5.39	5.67	4.20	4.30	1.60	1.50
College graduate	16.36	17.15	5.02	6.01	4.46	4.58	1.37	1.60
None or no report	13.43	11.92	5.98	4.62	3.59	3.54	1.60	1.37
Color of homemaker:								
White	14.64	16.67	5.07	5.60	3.90	4.34	1.35	1.46
Nonwhite	13.01	14.43	4.02	4.55	3.38	3.71	1.05	1.17
Nationality influencing food habits:								
None	14.10	16.57	4.92	5.62	3.77	4.33	1.32	1.47
North European	14.80	14.81	5.41	5.85	4.05	4.13	1.48	1.63
South European and Latin American	16.24	20.75	4.87	5.30	4.10	4.86	1.23	1.24
All other	17.90	7.07	4.48	2.64	4.21	2.19	1.05	0.82

Table 7A. TOTAL CONSUMPTION OF AND EXPENSE FOR DAIRY PRODUCTS: Average Quantities Used (Milk Equivalent) and Expense per Household and per Person in Households, Classified by Number of Persons and Annual Income per Person During One Week, in Oakland and Los Angeles

Income per person	Number of persons in household									
	Two		Three		Four		Five		Six or more	
	Oak.	L. A.	Oak.	L. A.	Oak.	L. A.	Oak.	L. A.	Oak.	L. A.
	qts.	qts.	qts.	qts.	qts.	qts.	qts.	qts.	qts.	qts.
Average quantities per household (milk equivalent):										
All classes	8.98	10.62	14.91	16.16	19.67	20.75	25.42	25.11	30.94	40.54
Less than $500	5.44	7.37	20.72	22.49	16.53	13.80	24.24	22.26	38.06	....
$500–999	8.97	10.41	15.38	16.25	18.50	21.05	25.10	26.21	30.37	37.43
$1,000–1,499	9.62	11.84	15.20	15.85	21.61	20.92	24.09	25.89	....	57.04
$1,500–1,999	7.20	10.39	14.95	15.93	19.90	21.11	18.68	....	22.66	....
$2,000–2,999	9.64	11.18	11.72	13.59	25.91	19.81	36.09	....	....	....
$3,000 and over	9.91	10.09	20.47	22.39	9.51	27.49	....	....	....	....
No report	9.58	10.61	15.66	16.25	21.14	20.51	33.23	23.33	28.30	43.45
Average quantities per person (milk equivalent):										
All classes	4.47	5.48	5.25	5.67	5.05	5.59	4.21	5.22	4.96	6.13
Less than $500	2.83	3.82	6.04	7.95	4.20	3.69	4.85	4.30	5.51	....
$500–999	4.48	5.32	5.01	5.35	4.66	5.41	5.18	5.34	4.74	5.88
$1,000–1,499	4.29	5.85	5.06	5.25	5.81	5.91	4.97	5.52	....	10.06

$1,500–1,999	3.87	4.92	5.42	6.03	5.30	6.04	4.22	....	4.45	....
$2,000–2,999	4.66	6.36	4.68	5.42	7.36	5.83	7.39	....	....	....
$3,000 and over	5.15	5.89	7.83	9.51	3.45	6.02	....	....	....	....
No report	4.94	4.82	5.97	5.81	5.12	5.41	6.98	5.08	4.94	5.96
Average expense per household:										
All classes	$2.61	$2.99	$4.10	$4.19	$4.85	$5.35	$6.04	$5.99	$7.83	$9.45
Less than $500	1.32	1.88	3.96	4.92	3.47	4.38	5.58	4.75	7.60	....
$500–999	1.96	2.81	4.25	3.82	4.32	5.03	5.73	6.10	7.28	8.41
$1,000–1,499	2.69	3.05	3.83	4.04	5.47	5.27	5.97	5.82	....	11.51
$1,500–1,999	2.03	2.92	4.19	4.31	5.38	5.10	3.98	....	7.09	....
$2,000–2,999	3.04	3.22	3.64	3.70	8.06	6.07	10.13	....	....	....
$3,000 and over	3.12	3.05	5.60	6.07	3.39	7.81	....	....	....	....
No report	2.90	3.07	4.46	4.52	5.42	5.72	8.55	6.54	9.91	11.13
Average expense per person:										
All classes	$1.30	$1.55	$1.44	$1.47	$1.25	$1.44	$1.24	$1.25	$1.25	$1.43
Less than $500	0.69	0.98	1.15	1.74	0.88	1.17	1.12	0.92	1.10	....
$500–999	0.98	1.43	1.39	1.26	1.09	1.29	1.18	1.24	1.14	1.32
$1,000–1,499	1.20	1.50	1.28	1.34	1.47	1.49	1.23	1.24	....	2.03
$1,500–1,999	1.09	1.38	1.52	1.63	1.43	1.46	0.90	....	1.39	....
$2,000–2,999	1.47	1.83	1.45	1.48	2.29	1.78	2.07	....	....	....
$3,000 and over	1.62	1.78	2.14	2.58	1.23	1.71	....	....	....	....
No report	1.49	1.40	1.70	1.61	1.31	1.51	1.80	1.42	1.73	1.53

Table 8A. TOTAL CONSUMPTION OF AND EXPENSE FOR DAIRY PRODUCTS: Average Quantities Used (Milk Equivalent) and Expense per Household and per Person in Households With and Without Children Under 16 Years, Classified by Annual Family Income During One Week, in Oakland and Los Angeles

Annual family income	Number of households				Average per household				Average per person			
	Oakland		Los Angeles		Oakland		Los Angeles		Oakland		Los Angeles	
	With children	Without children	With children	Without children	Hlds. with children	Hlds. without children	Hlds. with children	Hlds. without children	Hlds. with children	Hlds. without children	Hlds. with children	Hlds. without children
					qts.	qts.	qts.	qts.	qts.	qts.	qts.	qts.
Average quantities:												
All households	197	227	288	235	19.85	9.78	20.42	11.77	5.20	4.55	5.60	5.53
Under $2,000	15	22	11	31	14.67	8.13	18.29	10.05	4.55	4.07	6.30	4.99
$2,000–2,999	27	39	32	30	17.84	9.21	17.16	11.45	4.77	4.10	5.16	5.33
$3,000–3,999	60	45	77	42	21.20	8.54	20.01	11.90	5.20	4.08	5.35	5.19
$4,000–5,999	54	61	94	63	21.06	9.98	21.51	12.92	5.59	4.48	5.87	5.84
$6,000 and over	21	39	49	33	20.37	10.93	21.92	11.68	5.35	5.05	5.87	6.01
Not classified	20	21	25	26	18.56	12.53	19.72	11.29	4.94	6.30	5.16	5.64
Average expense:												
All households					$4.99	$2.85	$5.16	$3.26	$1.31	$1.32	$1.42	$1.53
Under $2,000					3.37	1.81	4.35	2.59	1.04	0.91	1.50	1.29
$2,000–2,999					4.57	2.52	3.92	3.03	1.22	1.12	1.18	1.41
$3,000–3,999					4.97	2.32	4.88	3.28	1.22	1.11	1.31	1.43
$4,000–5,999					5.37	3.06	5.40	3.61	1.43	1.37	1.47	1.63
$6,000 and over					5.72	3.54	6.03	3.54	1.50	1.64	1.62	1.82
Not classified					5.00	3.73	5.35	3.12	1.33	1.88	1.40	1.56

Table 9A. TOTAL CONSUMPTION OF AND EXPENSE FOR DAIRY PRODUCTS: Average Quantities Used (Milk Equivalent) and Expense per Household and per Person in Two-Adult Households, Classified by Number of Children and Annual Family Income During One Week, in Oakland and Los Angeles

Annual family income	Oakland					Los Angeles				
	All households	Number of children in household				All households	Number of children in household			
		None	One	Two	Three		None	One	Two	Three
	qts.	qts.	qts.	qts.	qts.	qts.	qts.	qts.	qts.	qts.
Average quantities per household:										
All households	13.03	8.24	14.98	19.74	27.16	15.17	10.31	15.68	21.04	26.03
Under $2,000	10.66	7.60	12.31	16.53	25.23	10.80	9.22	26.96	9.72	....
$2,000–2,999	11.05	7.75	14.45	12.25	26.63	13.91	9.75	15.26	22.64	19.73
$3,000–3,999	13.97	7.13	16.47	20.84	28.10	15.74	10.87	16.27	20.08	21.78
$4,000–5,999	13.79	7.91	15.34	20.60	26.66	17.18	11.56	15.45	21.55	29.92
$6,000 and over	13.96	9.65	16.62	20.60	27.95	15.79	10.00	14.78	22.49	27.54
Not classified	12.61	11.40	10.55	20.53	....	11.70	9.44	12.01	18.48	....
Average quantities per person:										
All households	5.10	4.57	5.39	5.29	5.70	5.66	5.55	5.79	5.77	5.45
Under $2,000	4.41	4.18	4.70	4.20	5.05	5.15	4.70	8.99	2.72	...
$2,000–2,999	4.34	4.01	5.11	3.17	4.95	5.14	4.98	5.30	6.11	4.04
$3,000–3,999	5.05	3.91	5.45	5.55	5.81	5.45	5.58	5.87	5.44	4.33
$4,000–5,999	5.27	4.36	5.66	5.66	5.96	6.15	6.52	5.86	5.93	6.48
$6,000 and over	5.91	5.97	5.91	5.27	6.08	6.00	5.72	5.67	6.39	5.80
Not classified	5.89	6.62	4.63	5.70	...	5.07	5.38	4.85	4.77	...
Average expense per household:										
All households	$3.49	$2.43	$4.05	$4.85	$6.48	$3.96	$2.93	$4.03	$5.40	$5.86
Under $2,000	2.35	1.68	2.57	3.47	6.12	2.70	2.47	4.70	3.64	...
$2,000–2,999	3.10	2.25	4.51	3.00	5.60	3.35	2.65	3.54	5.12	4.08
$3,000–3,999	3.52	2.07	4.16	4.85	6.53	4.00	3.03	4.07	4.92	5.11
$4,000–5,999	3.85	2.65	4.17	5.23	6.53	4.48	3.27	4.08	5.79	6.51
$6,000 and over	4.05	2.87	4.68	7.66	7.18	4.43	3.19	4.47	5.67	7.13
Not classified	3.41	3.31	2.81	4.71	...	3.41	2.71	3.75	5.24	...
Average expense per person:										
All households	$1.37	$1.35	$1.46	$1.30	$1.36	$1.48	$1.57	$1.49	$1.48	$1.23
Under $2,000	0.97	0.92	0.98	0.88	1.22	1.29	1.26	1.57	1.02	...
$2,000–2,999	1.22	1.16	1.60	0.78	1.04	1.24	1.35	1.23	1.38	0.84
$3,000–3,999	1.27	1.13	1.38	1.29	1.35	1.38	1.56	1.47	1.33	1.02
$4,000–5,999	1.47	1.46	1.54	1.44	1.46	1.60	1.85	1.55	1.59	1.41
$6,000 and over	1.72	1.78	1.66	1.96	1.56	1.68	1.82	1.72	1.61	1.50
Not classified	1.59	1.92	1.23	1.31	...	1.48	1.55	1.51	1.35	...

Table 10A. TOTAL CONSUMPTION OF AND EXPENSE FOR DAIRY PRODUCTS: Distribution of Households According to Quantities Used (Milk Equivalent) per Household and per Person and Food Expense Class During One Week, in Oakland and Los Angeles

Food expense	All households		Households using specified quantities (milk equivalent) per household						
			Less than 5 qts.	5–9.9 qts.	10–14.9 qts.	15–19.9 qts.	20–24.9 qts.	25–29.9 qts.	30 qts. and over
	no.	per cent	per cent	per cent	per cent	per cent	per cent	per cent	per cent
Proportions of food expense classes:									
Oakland:									
All classes	424	100.0	11.5	24.8	23.6	17.0	11.8	5.2	6.1
Less than $10	13	100.0	38.4	30.8	30.8	...	...	...	...
$10–19.99	174	100.0	18.4	38.5	25.9	9.8	5.7	1.1	0.6
$20–29.99	160	100.0	5.6	18.8	23.1	25.0	14.4	6.2	6.9
$30–39.99	46	100.0	6.5	4.3	17.4	19.6	28.3	8.7	15.2
$40 and over	21	100.0	...	9.5	9.5	14.3	9.5	23.8	33.4
No report	10	100.0	...	...	40.0	30.0	20.0	10.0	...
Los Angeles:									
All classes	513	100.0	5.5	17.5	27.5	19.9	13.6	9.0	7.0
Less than $10	28	100.0	25.0	32.1	32.1	7.2	...	3.6	...
$10–19.99	193	100.0	7.2	27.5	37.8	16.1	8.3	2.1	1.0
$20–29.99	206	100.0	1.5	12.2	22.8	26.2	18.9	12.6	5.8
$30–39.99	49	100.0	2.1	2.1	14.3	20.4	22.4	12.2	26.5
$40 and over	28	100.0	3.6	3.6	10.7	10.7	10.7	32.1	28.6
No report	9	100.0	22.3	11.1	22.2	22.2	11.1	...	11.1
Proportions of quantity classes:									
Oakland:									
All classes	424	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Less than $10	13	3.1	10.2	3.8	4.0	...	...	...	...
$10–19.99	174	41.0	65.3	63.8	45.0	23.6	20.0	9.1	3.9
$20–29.99	160	37.7	18.4	28.6	37.0	55.5	46.0	45.5	42.3
$30–39.99	46	10.8	6.1	1.9	8.0	12.5	26.0	18.2	33.9
$40 and over	21	5.0	...	1.9	2.0	4.2	4.0	22.7	33.9
No report	10	2.4	...	...	4.0	4.2	4.0	4.5	...
Los Angeles:									
All classes	513	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Less than $10	28	5.4	25.0	10.0	6.4	2.0	...	2.2	...
$10–19.99	193	37.6	50.0	58.9	51.8	30.4	22.9	8.7	5.6
$20–29.99	206	40.2	10.7	27.8	33.3	52.9	55.7	56.5	33.3
$30–39.99	49	9.6	3.6	1.1	5.0	59.8	15.7	13.0	36.1
$40 and over	28	5.4	3.6	1.1	2.1	2.9	4.3	19.6	22.2
No report	9	1.8	2.1	1.1	1.4	2.0	1.4	...	2.8

Food expense	All households		Households using specified quantities (milk equivalent) per person					
			Less than 3.5 qts.	3.5–4.9 qts.	5–5.9 qts.	6–6.9 qts.	7–7.9 qts.	8 qts. and over
	no.	per cent	per cent	per cent	per cent	per cent	per cent	per cent
Proportions of food expense classes:								
Oakland:								
All classes	424	100.0	25.2	28.8	20.5	10.9	6.6	8.0
Less than $10	13	100.0	69.2	15.4	7.7	. . .	7.7	. . .
$10–19.99	174	100.0	33.3	32.2	18.4	6.3	2.9	6.9
$20–29.99	160	100.0	17.5	26.9	23.7	15.6	8.8	7.5
$30–39.99	46	100.0	19.6	28.2	17.4	13.0	2.2	19.6
$40 and over	21	100.0	9.5	28.6	28.6	9.5	23.8	. . .
No report	10	100.0	10.0	20.0	20.0	20.0	20.0	10.0
Los Angeles:								
All classes	513	100.0	15.8	28.4	18.1	12.9	8.8	16.0
Less than $10	28	100.0	39.3	14.3	7.1	14.3	7.1	17.9
$10–19.99	193	100.0	19.2	32.1	16.6	10.9	6.2	15.0
$20–29.99	206	100.0	12.1	26.2	20.4	13.6	10.7	17.0
$30–39.99	49	100.0	4.1	26.5	26.5	20.4	10.2	12.3
$40 and over	28	100.0	10.7	35.7	7.2	10.7	14.3	21.4
No report	9	100.0	33.3	33.3	22.3	. . .	. . .	11.1
Proportions of quantity classes:								
Oakland:								
All classes	424	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Less than $10	13	3.1	8.4	1.6	1.1	. . .	3.6	. . .
$10–19.99	174	41.0	54.2	45.9	36.8	23.9	17.9	35.3
$20–29.99	160	37.7	26.2	35.3	43.7	54.4	50.0	35.3
$30–39.99	46	10.8	8.4	10.7	9.2	13.1	3.6	26.5
$40 and over	21	5.0	1.9	4.9	6.9	4.3	17.8	. . .
No report	10	2.4	0.9	1.6	2.3	4.3	7.1	2.9
Los Angeles:								
All classes	513	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Less than $10	28	5.4	13.6	2.7	2.1	6.1	4.4	6.1
$10–19.99	193	37.6	45.7	42.5	34.4	31.8	26.7	35.4
$20–29.99	206	40.2	30.9	37.0	45.2	42.4	48.9	42.7
$30–39.99	49	9.6	2.4	8.9	14.0	15.2	11.1	7.3
$40 and over	28	5.4	3.7	6.8	2.2	4.5	8.9	7.3
No report	9	1.8	3.7	2.1	2.1	. . .	. . .	1.2

Table 11A. THE MAJOR DAIRY PRODUCTS: Average Quantities (Milk Equivalent) and Average Expense per Household and per Person and Per Cent of Total Used During One Week, in Oakland and Los Angeles

Products	Quantities (milk equivalent)						Expense					
	Average quantities				Per cent of total		Average expense				Per cent of total	
	Per household		Per person				Per household		Per person			
	Oak.	L. A.	Oak.	L. A.	Oak.	L. A.	Oak.	L. A.	Oak.	L. A.	Oak.	L. A.
	qts.	qts.	qts.	qts.	per cent	per cent						
All dairy products	14.46	16.62	4.94	5.58	100.0	100.0	$3.84	$4.33	$1.31	$1.45	100.0	100.0
All fluid milk	10.10	11.42	3.45	3.83	69.8	68.7	2.01	2.26	0.69	0.76	52.3	52.2
All whole milk*	9.27	10.39	3.17	3.48	64.1	62.5	1.85	2.04	0.64	0.68	48.3	47.1
Other fluid milk	0.83	1.03	0.28	0.35	5.7	6.2	0.16	0.22	0.05	0.08	4.0	5.1
Nonfat milk	0.32	0.38	0.11	0.13	2.2	2.3	0.06	0.06	0.02	0.02	1.5	1.4
Buttermilk	0.30	0.33	0.10	0.11	2.1	2.0	0.05	0.05	0.02	0.02	1.4	1.2
Chocolate drink	0.19	0.15	0.06	0.05	1.3	0.9	0.04	0.03	0.01	0.01	0.9	0.7
Yogurt	0.02	0.08	0.01	0.03	0.1	0.5	0.01	0.05	†	0.02	0.2	1.0
Goat milk	. . .	0.09	. . .	0.03	. . .	0.5	. . .	0.03	. . .	0.01	. . .	0.8
Half-and-half	0.23	0.36	0.08	0.12	1.6	2.1	$0.14	$0.21	$0.05	$0.07	3.7	4.8
All cream	0.06	0.08	0.02	0.03	0.4	0.5	0.10	0.12	0.04	0.04	2.6	2.8
Table cream	0.02	0.02	0.01	0.01	0.1	0.2	0.02	0.03	0.01	0.01	0.5	0.6
Whipping cream	0.04	0.02	0.01	0.01	0.3	0.1	0.07	0.03	0.03	0.01	1.9	0.9
Whipped cream	†	0.01	†	†	†	†	0.01	0.02	†	0.01	0.1	0.4
Sour cream	†	0.02	†	0.01	†	0.2	†	0.03	†	0.01	0.1	0.7
All-purpose cream	. . .	0.01	. . .	†	. . .	†	. . .	0.01	. . .	†	. . .	0.2

Evaporated milk	0.98	0.80	0.33	0.27	6.8	4.8	$0.16	$0.13	$0.05	$0.04	4.1	3.1
Condensed milk, dry milk, and infant formula	0.11	0.16	0.04	0.05	0.8	1.0	0.03	0.03	0.01	0.01	0.8	0.8
Condensed milk	†	0.01	†	†	0.1	0.1	†	†	†	†	†	0.1
Whole dry milk	0.02	†	0.01	†	0.1	†	†	†	†	†	0.1	†
Nonfat dry milk	0.03	0.05	0.01	0.02	0.2	0.3	†	†	†	†	0.1	0.1
Canned infant formula	0.06	0.03	0.02	0.01	0.4	0.2	0.03	0.01	0.01	0.01	0.6	0.2
Dry infant formula	...	0.07	...	0.02	...	0.4	...	0.02	...	†	...	0.4
Cottage cheese	0.99	1.30	0.34	0.44	6.8	7.8	$0.21	$0.26	$0.07	$0.08	5.6	5.9
American Cheddar cheese	1.29	1.59	0.44	0.53	9.0	9.6	0.27	0.32	0.09	0.11	7.0	7.5
Other cheese	0.29	0.48	0.10	0.16	2.0	2.9	$0.11	$0.17	$0.04	$0.06	2.8	3.9
Other hard cheese	0.24	0.42	0.08	0.14	1.6	2.6	0.06	0.11	0.02	0.04	1.5	2.5
Cream cheese, cream cheese spreads	0.05	0.06	0.02	0.02	0.4	0.3	0.05	0.06	0.02	0.02	1.3	1.4
Frozen desserts	0.41	0.43	0.14	0.15	2.8	2.6	$0.39	$0.41	$0.13	$0.14	10.1	9.4
Ice cream	0.40	0.41	0.14	0.14	2.8	2.5	0.36	0.37	0.12	0.13	9.4	8.5
Sherbet	0.01	0.01	†	0.01	†	0.1	0.01	0.02	†	†	0.3	0.3
Ice milk	†	0.01	†	†	†	†	0.02	0.02	0.01	0.01	0.4	0.6
Butter‡	...	...	...	...	...	...	$0.42	$0.42	$0.14	$0.14	11.0	9.6

* Includes extra-fat milk which was used by five families in Oakland who used an average of 6 quarts, and by 17 families in Los Angeles who used an average of 10.88 quarts

† Less than 0.005 quart (milk equivalent), less than $0.005, or less than 0.005 per cent.

‡ No milk equivalent in protein and minerals.

Table 12A. THE MAJOR DAIRY PRODUCTS: Average Quantities Used per Household and per Person by All Households and by Households Using During One Week, in Oakland and Los Angeles

Products	All households				Per cent of households using each product		Households using			
	Average quantities						Average quantities			
	Per household		Per person				Per household		Per person	
	Oak.	L. A.	Oak.	L. A.	Oak.	L. A.	Oak.	L. A.	Oak.	L. A.
	qts.	qts.	qts.	qts.	per cent	per cent	qts.	qts.	qts.	qts.
All fluid milk	10.10	11.42	3.45	3.83	97.9	98.8	10.32	11.56	3.50	3.86
All whole milk*	9.27	10.39	3.17	3.48	95.3	95.9	9.73	10.84	3.26	3.61
Other fluid milk	0.83	1.03	0.28	0.35	28.1	36.3	2.96	2.84	0.93	0.93
Nonfat milk	0.32	0.38	0.11	0.13	8.0	8.2	4.01	4.63	1.37	1.63
Buttermilk	0.30	0.33	0.10	0.11	13.9	18.9	2.18	1.76	0.73	0.59
Chocolate drink	0.19	0.15	0.06	0.05	8.5	6.0	2.24	2.50	0.59	0.68
Yogurt	0.02	0.08	0.01	0.03	2.4	8.6	0.63	0.91	0.22	0.30
Goat milk	...	0.09	...	0.03	...	1.0	...	9.15	...	3.09
	lbs.	lbs.	lbs.	lbs.			lbs.	lbs.	lbs.	lbs.
Half-and-half	0.59	0.89	0.20	0.30	28.1	38.2	2.09	2.32	0.73	0.80
All cream	0.18	0.25	0.06	0.08	24.8	30.8	0.73	0.80	0.25	0.27
Table cream	0.05	0.07	0.02	0.02	6.1	7.2	0.83	1.04	0.34	0.37
Whipping cream	0.12	0.06	0.04	0.02	17.0	10.9	0.70	0.56	0.23	0.18
Whipped cream	†	0.02	†	0.01	1.9	4.3	0.21	0.41	0.07	0.13
Sour cream	0.01	0.08	†	0.02	1.7	11.3	0.39	0.68	0.14	0.24
All-purpose cream	...	0.02	...	0.01	...	2.3	...	0.71	...	0.19

Evaporated milk	1.05	0.86	0.36	0.29	46.2	37.0	2.27	2.33	0.73	0.75
Condensed milk, dry milk, and infant formula	0.08	0.07	0.03	0.02	4.2	6.2	1.95	1.16	0.60	0.38
Condensed milk	†	0.01	†	†	0.5	1.0	0.94	1.12	0.37	0.41
Whole dry milk	†	†	†	†	0.9	0.2	0.45	0.14	0.12	0.07
Nonfat dry milk	0.01	0.01	†	†	1.7	3.1	0.34	0.35	0.13	0.12
Canned infant formula	0.07	0.03	0.03	0.01	0.9	0.6	7.27	5.48	1.83	1.51
Dry infant formula	*	0.02	†	0.01	0.2	1.4	†	1.36	†	0.39
Cottage cheese	0.70	0.93	0.24	0.31	59.4	68.0	1.19	1.36	0.41	0.45
American Cheddar cheese	0.40	0.50	0.14	0.17	66.7	69.8	0.60	0.71	0.19	0.23
Other cheese	0.13	0.20	0.04	0.07	31.8	40.2	0.41	0.50	0.13	0.16
Other hard cheese	0.07	0.13	0.02	0.05	18.2	24.2	0.42	0.55	0.12	0.18
Cream cheese, cream cheese spreads	0.06	0.07	0.02	0.02	17.7	23.0	0.32	0.29	0.11	0.09
Frozen desserts	0.79	0.85	0.27	0.29	47.4	53.2	1.66	1.61	0.55	0.50
Ice cream	0.71	0.74	0.24	0.25	45.8	48.9	1.56	1.54	0.51	0.48
Sherbet	0.05	0.06	0.02	0.02	3.5	3.7	1.30	1.63	0.51	0.54
Ice milk	0.03	0.05	0.01	0.02	0.9	3.7	2.81	1.30	0.79	0.37
Butter	0.53	0.54	0.18	0.18	51.9	52.8	1.03	1.02	0.36	0.35

---

* Includes extra-fat milk which was used by five families in Oakland who used an average of 6 quarts, and by 17 families in Los Angeles who used an average of 10.88 quarts.

† Less than 0.005 quart or pound.

Table 13A. USE OF FLUID MILK AS A BEVERAGE: Distribution of Households With and Without Children and of Two-Adult Households According to Quantities of Fluid Milk Used as a Beverage per Household and per Person During One Week, in Oakland and Los Angeles

Quantities used (quarts)	Oakland		Los Angeles		Two-adult households in Oakland					Two-adult households in Los Angeles				
	Hlds. with children	Hlds. without children	Hlds. with children	Hlds. without children	All hlds.	Number of children				All hlds.	Number of children			
						None	One	Two	Three		None	One	Two	Three
	per cent	per cent	per cent	per cent	per cent	per cent	per cent	per cent	per cent	per cent	per cent	per cent	per cent	per cent
Per household:														
None	2.0	11.5	0.4	9.3	8.7	14.4	2.9	2.1	...	5.3	11.1	1.0	...	...
Less than 5	9.6	53.3	10.4	45.3	36.2	58.1	20.6	2.1	...	29.4	51.5	19.8	4.8	...
5–9.99	33.5	24.7	42.0	32.0	28.5	21.9	42.7	43.7	...	35.0	29.2	52.1	33.8	14.8
10–14.99	32.5	7.9	24.6	8.9	18.5	5.0	31.2	31.2	54.5	17.0	5.3	17.7	34.9	33.3
15–19.99	15.2	1.8	11.8	3.1	5.4	0.6	4.4	14.6	22.7	8.5	2.9	4.2	18.1	29.7
20–24.99	4.6	0.4	6.9	1.3	2.0	...	...	4.2	18.2	3.4	...	4.2	7.2	11.1
25 and over	2.5	0.4	3.8	...	0.7	...	...	2.1	4.6	1.4	...	1.0	1.2	11.1
Per person:														
None	2.0	11.5	0.4	9.3	8.7	14.4	2.9	2.1	...	5.3	11.1	1.0	...	...
Less than 1	4.6	18.5	5.6	17.8	10.1	15.6	7.3	...	...	11.1	18.1	8.3	3.6	...
1–1.99	20.3	27.3	17.0	20.4	24.8	29.4	22.1	25.0	...	18.0	21.6	13.6	18.1	11.1
2–2.99	31.0	18.5	28.8	17.3	23.1	18.1	25.0	27.1	45.5	22.6	15.8	32.3	21.7	33.3
3–3.99	17.3	11.9	26.0	14.2	14.4	10.6	16.2	20.8	22.7	21.5	13.5	28.1	30.1	22.2
4–4.99	19.8	5.3	10.1	11.1	12.1	4.4	20.6	18.7	27.3	9.6	8.8	7.3	8.4	26.0
5–5.99	4.1	2.6	5.2	3.6	3.4	1.9	5.9	4.2	4.5	4.5	4.1	4.2	6.0	3.7
6 or more	1.0	4.4	6.9	6.2	3.4	5.6	...	2.1	...	7.4	7.0	5.2	12.1	3.7
Av. qts. per hld.	10.92	4.49	11.24	5.16	6.69	3.66	7.70	11.20	15.85	7.83	4.40	8.04	12.01	15.92
Av. qts. per person	2.86	2.09	3.08	2.43	2.6	2.0	2.8	3.3	3.3	2.9	2.4	3.0	3.3	3.3

Table 14A. USE OF FLUID MILK AS A BEVERAGE: Distribution of Family Members Classified by Age and Sex and by Quantities of Fluid Milk Used as a Beverage During One Week, in Oakland and Los Angeles

Family members	Quarts of fluid milk used as a beverage															
	Less than 2		2–2.99		3–3.99		4–4.99		5–5.99		6–6.99		7–7.99		8 or more	
	Oak.	L. A.	Oak.	L. A.	Oak.	L. A.	Oak.	L. A.	Oak.	L. A.	Oak.	L. A.	Oak.	L. A.	Oak.	L. A.
	per cent	per cent	per cent	per cent	per cent	per cent	per cent	per cent	per cent	per cent	per cent	per cent	per cent	per cent	per cent	per cent
All family members 1 year and over*	50.4	44.7	10.5	9.3	11.5	12.8	7.7	7.6	8.4	11.9	2.7	4.3	4.3	3.9	4.5	5.5
Children	3.0	4.5	13.6	7.7	18.0	14.1	14.0	15.2	24.6	30.6	5.5	10.4	11.4	8.5	9.9	9.0
1–3	4.1	3.2	20.6	18.3	16.4	12.9	13.7	12.9	24.7	30.1	5.5	10.8	12.3	4.3	2.7	7.5
4–6	2.5	6.6	16.0	4.7	21.0	14.2	13.6	16.0	23.5	34.9	4.9	9.4	12.3	8.5	6.2	5.7
7–9	2.6	2.2	5.3	3.3	21.0	15.4	15.8	14.3	23.7	27.5	5.3	13.2	9.2	10.9	17.1	13.2
10–12	2.4	5.8	11.9	4.7	9.5	13.9	11.9	17.4	28.6	29.1	7.1	8.1	11.9	10.5	16.7	10.5
Adolescents	25.0	15.1	9.4	5.6	12.5	19.8	12.5	14.3	9.4	11.9	12.5	7.9	6.2	7.9	12.5	17.5
Girls	36.2	20.3	8.5	7.8	10.7	23.5	17.0	15.6	6.4	17.2	8.5	3.1	4.2	6.2	8.5	6.3
13–15	6.7	...	13.3	5.0	20.0	20.0	13.3	15.0	13.4	40.0	20.0	10.0	...	...	13.3	10.0
16–20	50.0	29.5	6.3	9.1	6.2	25.0	18.8	15.9	3.1	6.8	3.1	...	6.2	9.1	6.3	4.6
Boys	14.3	9.7	10.2	3.2	14.3	16.2	8.2	12.9	12.2	6.4	16.3	12.9	8.2	9.7	16.3	29.0
13–15	9.1	3.5	9.1	...	9.1	24.1	13.6	17.2	18.2	13.8	18.2	10.3	4.5	3.5	18.2	27.6
16–20	18.5	15.2	11.1	6.1	18.6	9.0	3.7	9.1	7.4	...	14.8	15.1	11.1	15.2	14.8	30.3
Adults	68.0	62.5	9.6	10.3	9.4	11.6	5.3	4.1	3.2	5.2	0.7	1.7	1.8	1.8	2.0	2.8
Women	74.0	69.6	9.4	9.6	8.3	10.6	3.9	3.4	1.8	3.1	0.4	0.6	1.8	1.5	0.4	1.6
21–29	57.8	60.6	13.4	8.6	11.1	18.3	7.8	2.9	4.4	5.8	1.1	1.9	4.4	1.0	...	0.9
30–39	73.2	69.8	11.6	6.8	7.1	11.7	3.6	4.3	1.8	1.8	...	0.6	1.8	1.9	0.9	3.1
40–49	80.2	74.3	6.9	13.3	9.9	3.5	1.0	4.4	...	2.7	1.0	...	1.0	0.9	...	0.9
50–59	84.8	73.8	5.4	9.5	5.4	7.1	2.2	3.6	1.1	3.6	...	...	1.1	1.2	...	1.2
60–69	69.8	71.9	9.3	10.6	9.3	10.5	7.0	1.8	2.3	3.5	...	...	...	1.7	2.3	...
70 and over	78.9	66.7	10.5	13.4	5.3	13.3	5.3	...	...	...	...	...	...	3.3	...	3.3
Men	61.6	54.8	9.8	11.0	10.6	12.7	6.7	4.8	4.8	7.5	1.0	3.0	1.9	2.2	3.6	4.0
21–29	28.8	39.4	10.2	5.7	23.7	18.3	8.5	7.0	11.8	8.5	1.7	4.2	5.1	7.0	10.2	9.9
30–39	64.9	53.9	7.2	12.5	8.1	12.5	9.0	4.6	4.5	7.9	...	3.3	1.8	1.3	4.5	4.0
40–49	66.6	61.1	12.5	12.1	7.3	11.1	5.2	3.7	2.1	4.6	2.1	3.7	2.1	0.9	2.1	2.8
50–59	73.1	60.5	6.4	9.3	10.3	12.8	2.6	3.5	3.7	9.3	...	2.3	1.3	1.2	2.6	1.1
60–69	68.0	60.0	10.0	14.5	10.0	9.1	10.0	5.5	2.0	5.5	...	...	...	1.8	...	3.6
70 and over	54.6	46.7	22.7	10.0	4.6	13.3	4.5	6.7	9.1	13.3	4.5	3.3	...	3.3	...	3.4

* Includes persons who drank no milk during the week of the survey. (See table 7.)

Table 15A. THE MAJOR DAIRY PRODUCTS: Average Quantities Used and Expense per Household and per Person in Households With and Without Children During One Week, in Oakland and Los Angeles

Kind of product and type of household	Average quantities				Average expense				Total dairy products			
	Per household		Per person		Per household		Per person		Milk equivalent		Expense	
	Oak.	L. A.	Oak.	L. A.	Oak.	L. A.	Oak.	L. A.	Oak.	L. A.	Oak.	L. A.
	qts.	qts.	qts.	qts.					per cent	per cent	per cent	per cent
Fluid milk:												
Households with children	14.44	14.63	3.78	4.01	$2.86	$2.89	$0.75	$0.79	72.75	71.66	57.44	56.07
Households without children	6.33	7.32	2.95	3.44	1.27	1.44	0.59	0.68	64.69	62.18	44.47	44.22
	lbs.	lbs.	lbs.	lbs.								
Half-and-half:												
Households with children	0.64	0.81	0.17	0.22	0.16	0.13	0.04	0.05	1.29	1.59	3.17	3.73
Households without children	0.54	0.99	0.25	0.46	0.13	0.22	0.06	0.10	2.21	3.36	4.61	6.89
All cream:												
Households with children	0.16	0.25	0.04	0.07	0.10	0.12	0.03	0.05	0.27	0.40	1.99	2.38
Households without children	0.20	0.24	0.09	0.11	0.10	0.12	0.03	0.06	0.66	0.66	3.61	3.72
Evaporated milk:												
Households with children	1.49	0.93	0.39	0.26	0.22	0.14	0.06	0.04	6.98	6.38	4.33	2.80
Households without children	0.67	0.78	0.31	0.36	0.10	0.12	0.05	0.06	4.23	6.14	3.63	3.66
Cottage cheese:												
Households with children	0.72	0.99	0.19	0.27	0.22	0.27	0.06	0.08	5.10	6.78	4.44	5.28
Households without children	0.69	0.85	0.32	0.40	0.21	0.24	0.09	0.11	9.87	10.11	7.28	7.29
American Cheddar cheese:												
Households with children	0.51	0.58	0.13	0.16	0.33	0.37	0.08	0.10	8.24	9.11	6.58	7.27
Households without children	0.31	0.39	0.14	0.18	0.22	0.26	0.10	0.12	10.20	10.56	7.73	7.81
Frozen desserts:												
Households with children	0.90	1.04	0.24	0.28	0.44	0.50	0.11	0.14	2.44	2.61	8.75	9.69
Households without children	0.69	0.62	0.32	0.29	0.35	0.29	0.16	0.14	3.57	2.60	12.12	8.94
Butter:*												
Households with children	0.58	0.55	0.15	0.15	0.46	0.42	0.12	0.12	...	...	9.27	8.21
Households without children	0.49	0.52	0.23	0.24	0.39	0.41	0.18	0.19	...	...	13.50	12.50

* No milk equivalent in protein and minerals.

Table 16A. THE MAJOR DAIRY PRODUCTS: Average Quantities Used and Expense per Household and per Person in Two-Adult Households During One Week, in Oakland and Los Angeles

Kind of product and type of two-adult household	Average quantities				Average expense				Total dairy products			
	Per household		Per person		Per household		Per person		Milk equivalent		Expense	
	Oak.	L. A.	Oak.	L. A.	Oak.	L. A.	Oak.	L. A.	Oak.	L. A.	Oak.	L. A.
	qts.	qts.	qts.	qts.					per cent	per cent	per cent	per cent
Fluid milk:												
All households	9.13	10.43	3.57	3.89	$1.82	$1.29	$0.71	$0.69	70.80	68.75	52.20	52.15
No children	5.28	6.40	2.93	3.44	1.06	2.07	0.59	0.77	64.09	62.05	43.47	44.04
One child	10.65	10.80	3.83	3.99	2.12	2.12	0.76	0.78	71.04	68.89	52.25	52.55
Two children	14.80	15.42	3.97	4.23	2.95	3.08	0.79	0.85	74.99	73.30	60.79	57.03
Three children	20.08	19.24	4.21	4.03	4.01	3.69	0.84	0.77	73.95	73.91	61.89	63.06
	lbs.	lbs.	lbs.	lbs.								
Half-and-half:												
All households	0.58	0.83	0.23	0.31	0.14	0.19	0.05	0.07	1.77	2.18	4.02	4.86
No children	0.45	0.88	0.25	0.47	0.11	0.20	0.06	0.11	2.19	3.42	4.45	6.90
One child	0.96	0.63	0.34	0.23	0.24	0.15	0.09	0.06	2.55	1.62	5.81	3.78
Two children	0.55	0.99	0.15	0.27	0.14	0.23	0.04	0.06	1.12	1.87	2.82	4.26
Three children	0.36	0.69	0.08	0.15	0.09	0.16	0.02	0.03	0.52	1.07	1.39	2.73
All cream:												
All households	0.18	0.24	0.07	0.09	0.10	0.12	0.04	0.04	0.46	0.51	2.90	2.95
No children	0.21	0.25	0.11	0.13	0.11	0.12	0.06	0.06	0.83	0.78	4.57	4.03
One child	0.15	0.21	0.05	0.08	0.09	0.10	0.03	0.04	0.33	0.44	2.15	2.57
Two children	0.12	0.22	0.03	0.05	0.07	0.14	0.02	0.04	0.20	0.40	1.49	2.64
Three children	0.26	0.18	0.07	0.04	0.13	0.08	0.03	0.02	0.27	0.23	2.05	1.38
Evaporated milk:												
All households	0.86	0.82	0.34	0.31	0.13	0.13	0.05	0.05	6.17	5.05	3.65	3.22
No children	0.59	0.62	0.32	0.33	0.09	0.10	0.05	0.05	6.61	5.59	3.64	3.23

One child	0.87	1.10	0.31	0.40	0.13	0.17	0.05	0.06	5.38	6.50	3.24	4.11
Two children	1.18	0.69	0.32	0.19	0.16	0.12	0.04	0.03	5.58	3.05	3.41	2.16
Three children	2.19	1.57	0.46	0.33	0.32	0.24	0.06	0.05	7.49	5.60	4.89	4.01
Cottage cheese:												
All households	0.63	0.89	0.25	0.32	0.19	0.24	0.08	0.09	6.76	7.91	5.57	5.98
No children	0.54	0.78	0.30	0.42	0.16	0.22	0.09	0.12	9.10	10.59	6.78	7.42
One child	0.66	0.81	0.24	0.30	0.21	0.22	0.08	0.08	6.19	7.22	5.13	5.59
Two children	0.76	0.95	0.20	0.26	0.23	0.26	0.06	0.07	5.38	6.35	4.70	4.89
Three children	0.92	1.21	0.19	0.25	0.29	0.32	0.06	0.07	4.75	6.52	4.51	5.48
American Cheddar cheese:												
All households	0.36	0.44	0.14	0.16	0.25	0.29	0.10	0.11	8.90	9.22	7.03	7.35
No children	0.28	0.33	0.15	0.18	0.20	0.22	0.11	0.12	10.79	10.22	8.07	7.58
One child	0.39	0.48	0.14	0.18	0.26	0.29	0.10	0.11	8.34	9.91	6.54	7.19
Two children	0.50	0.58	0.13	0.16	0.33	0.44	0.09	0.12	8.14	8.86	6.79	8.10
Three children	0.58	0.49	0.12	0.10	0.36	0.29	0.07	0.06	6.86	6.10	5.49	4.86
Frozen desserts:												
All households	0.75	0.82	0.29	0.31	0.37	0.37	0.14	0.14	2.97	2.68	10.65	9.44
No children	0.65	0.60	0.34	0.32	0.31	0.28	0.17	0.15	3.67	2.87	13.00	9.48
One child	0.62	0.90	0.22	0.33	0.32	0.41	0.11	0.15	2.19	2.88	7.85	10.10
Two children	1.13	1.06	0.30	0.29	0.55	0.48	0.15	0.13	3.10	2.54	11.28	8.96
Three children	1.22	1.13	0.26	0.24	0.56	0.53	0.12	0.11	2.52	2.11	8.66	9.08
Butter:*												
All households	0.45	0.50	0.17	0.19	0.35	0.38	0.14	0.15	...	...	10.05	9.75
No children	0.38	0.49	0.21	0.26	0.30	0.38	0.17	0.20	...	...	12.38	13.01
One child	0.58	0.56	0.21	0.21	0.45	0.43	0.16	0.16	...	...	11.20	10.69
Two children	0.43	0.53	0.12	0.14	0.34	0.40	0.09	0.11	...	...	7.02	7.41
Three children	0.52	0.27	0.11	0.06	0.42	0.22	0.09	0.05	...	...	6.42	3.73

* No milk equivalent in protein and minerals.

Table 17A. SOURCES OF DAIRY PRODUCTS: Proportions of Households Using Homogenized Milk Who Had None, 100 per cent, 50–99 per cent, or Less than 50 per cent Delivered by Dairies, and Proportions of Total Quantities Consumed by These Households During One Week, in Oakland and Los Angeles

Classes	Proportions delivered by dairies							
	None		100 per cent		50–99 per cent		Less than 50 per cent	
	Oak.	L. A.	Oak.	L. A.	Oak.	L. A.	Oak.	L. A.
	Proportions of households using homogenized milk (per cent)							
All households*	59.1	49.4	28.3	34.4	11.0	13.2	1.6	2.1
Annual family income:								
Less than $2,000	71.4	61.5	17.9	38.5	7.1	...	3.6	...
$2,000–2,999	63.5	60.6	23.1	24.2	11.5	15.2	1.9	...
$3,000–3,999	57.8	51.7	27.7	32.2	13.3	12.6	1.2	3.5
$4,000–5,999	53.0	43.7	32.5	34.0	13.3	17.5	1.2	4.8
$6,000 and over	55.6	42.3	33.3	42.3	11.1	11.5	...	3.9
No report	61.1	58.1	33.3	35.5	2.8	6.4	2.8	...
Annual income per person:								
Less than $500	62.5	50.0	25.0	50.0	6.3	...	6.2	...
$500–999	50.0	50.0	29.0	25.0	19.7	20.6	1.3	4.4
$1,000–1,499	72.2	44.6	20.8	41.9	7.0	10.8	...	2.7
$1,500–1,999	53.8	52.2	30.8	30.4	15.4	13.0	...	4.4
$2,000–2,999	54.8	60.6	38.1	30.3	7.1	6.1	...	3.0
$3,000 and over	64.7	69.2	29.4	23.1	5.9	7.7	...	...
No report	58.1	46.6	30.2	38.6	4.7	12.5	7.0	2.3
Weekly food expense:								
Less than $10	71.4	58.8	28.6	29.4	...	11.8	...	...
$10–19.99	66.1	59.5	24.2	32.2	9.7	7.5	...	0.8
$20–29.99	51.9	47.4	37.3	35.3	8.5	14.3	2.3	3.0
$30–39.99	53.8	28.9	20.5	42.1	25.7	21.1	...	7.9
$40 and over	61.5	37.5	23.1	31.3	7.7	25.0	7.7	6.2
No report	66.7	57.1	...	28.6	16.7	...	16.6	14.3

Two-adult households:								
All	58.7	50.6	28.3	35.4	12.1	11.1	0.9	2.9
No children	74.8	68.2	22.3	27.3	2.9	2.7	...	1.8
One child	46.6	42.1	32.8	45.6	18.9	10.5	1.7	1.8
Two children	46.3	31.1	34.1	36.1	17.1	26.2	2.5	6.6
Three children	38.1	33.3	33.3	53.4	28.6	13.3	...	...
Proportions of total quantities consumed by households using homogenized milk (per cent)								
All households†	55.1	44.5	28.8	33.4	13.8	16.8	2.3	4.2
Annual family income:								
Less than $2,000	50.9	58.8	26.5	41.2	17.3	...	5.3	...
$2,000–2,999	54.5	62.4	23.3	16.1	15.9	21.5	6.3	...
$3,000–3,999	54.1	48.4	30.4	27.3	14.5	19.2	1.0	5.1
$4,000–5,999	53.6	38.0	29.9	38.0	15.3	19.6	1.2	4.4
$6,000 and over	58.4	38.9	28.0	41.9	13.6	11.8	...	7.4
No report	58.3	58.6	36.8	30.8	1.3	10.6	3.6	...
Annual income per person:								
Less than $500	49.1	47.1	24.7	52.9	11.9	...	14.3	...
$500–999	49.4	49.6	27.3	20.5	22.4	24.5	0.9	5.4
$1,000–1,499	69.7	41.7	23.1	39.5	7.2	14.2	...	4.6
$1,500–1,999	49.5	44.0	32.0	28.2	18.5	19.7	...	8.1
$2,000–2,999	55.0	56.2	37.3	34.4	7.7	8.2	...	1.2
$3,000 and over	50.2	67.0	43.1	25.9	6.7	7.1	...	...
No report	49.9	41.7	35.4	41.2	6.2	14.6	8.5	2.5
Weekly food expense:								
Less than $10	66.7	65.0	33.3	21.0	...	14.0	...	...
$10–19.99	58.9	57.2	28.4	33.6	12.7	8.8	...	0.4
$20–29.99	50.5	47.6	35.5	32.2	10.2	16.5	3.8	3.7
$30–39.99	50.5	27.7	19.5	36.4	30.0	28.1	...	7.8
$40 and over	68.5	26.1	22.6	43.9	5.1	21.9	3.8	8.1
No report	64.2	67.3	...	9.1	13.9	...	21.9	23.6
Two-adult households:								
All	52.6	44.0	30.0	35.6	16.4	16.7	1.0	3.7
No children	67.9	68.0	25.1	27.7	7.0	3.6	...	0.7
One child	50.0	45.2	31.8	40.6	16.5	12.4	1.7	1.8
Two children	50.5	29.1	31.6	32.7	16.4	30.0	1.5	8.2
Three children	39.6	33.8	31.2	54.0	29.2	12.2	...	...

---

* Does not include 0.9 per cent of the households who did not report source.

† Does not include 1.1 per cent of the quantity used for which no source was reported.

Table 18A. SOURCES OF DAIRY PRODUCTS: Sources from which Homogenized Milk, Half-and-Half, Cottage Cheese, and Butter Were Purchased by Households Studied During One Week, in Oakland and Los Angeles

Sources	Households securing from each source		Total quantity from each source		Average quantity from each source			
					Per household		Per person	
	Oak.	L. A.	Oak.	L. A.	Oak.	L. A.	Oak.	L. A.
	per cent	per cent	per cent	per cent	qts.	qts.	qts.	qts.
Homogenized milk:								
Households using	100.0	100.0	100.0	100.0	9.55	10.20	3.17	3.40
Delivered by dairies	40.9	49.7	44.9	54.4	10.48	11.17	3.27	3.54
All delivered	28.3	34.4	28.8	33.4	9.72	9.93	3.22	3.33
Delivered and chain stores	6.3	7.2	9.0	10.9	13.70	15.41	3.46	4.50
Delivered and independent stores	5.7	4.2	6.5	5.6	10.92	13.44	3.38	3.78
Delivered and other*	0.6	3.9	0.6	4.5	8.50	11.80	2.18	3.11
Retail stores only	58.5	48.8	54.4	44.1	8.88	9.21	3.10	3.26
Chain stores only	27.7	23.5	22.8	17.3	7.87	7.52	2.96	2.92
Independent stores only	29.6	20.2	30.1	20.7	9.73	10.44	3.20	3.37
Chain and independent stores	1.2	1.8	1.5	1.7	11.25	9.60	3.50	3.01
Other†	...	3.3	...	4.4	...	13.48	...	4.83
Other sources	0.6	0.6	0.7	0.4	10.50	7.50	2.96	2.37
Gift and/or home-produced	...	0.3	...	‡	...	1.00	...	0.37
Wholesale outlets	0.6	0.3	0.7	0.4	10.50	14.00	2.96	3.81
No report	...	0.9	...	1.1	...	12.05	...	3.74
					lbs.	lbs.	lbs.	lbs.
Half-and-half:								
Households using	100.0	100.0	100.0	100.0	2.09	2.32	0.73	0.80
Delivered by dairies	24.4	37.3	21.8	45.6	1.87	2.84	0.63	0.94
All delivered	23.5	33.7	20.5	39.9	1.82	2.75	0.61	0.91
Delivered and chain stores	...	1.0	...	2.3	...	5.35	...	2.62
Delivered and independent stores	0.9	0.5	1.3	0.9	3.21	3.94	1.07	1.01
Delivered and other*	...	2.1	...	2.5	...	2.81	...	0.94
Retail stores only	74.8	61.7	77.3	52.2	2.16	1.96	0.77	0.69
Chain stores only	42.0	33.7	41.1	25.0	2.04	1.73	0.73	0.67
Independent stores only	31.9	22.9	34.8	23.1	2.27	2.33	0.80	0.76
Chain and independent stores	0.9	0.5	1.4	0.9	3.61	4.28	1.31	1.91
Other†	...	4.6	...	3.2	...	1.60	...	0.44

Gift and/or home-produced	0.8	...	0.9	...	2.14	...	1.95	...
Wholesale outlets	...	0.5	...	1.5	...	6.69	...	1.82
No report	...	0.5	...	0.7	...	3.21	...	1.16
Cottage cheese:								
Households using	100.0	100.0	100.0	100.0	1.19	1.36	0.41	0.45
Delivered by dairies	21.0	19.5	24.0	20.6	1.36	1.44	0.45	0.44
All delivered	19.0	18.6	20.1	18.8	1.26	1.37	0.43	0.42
Delivered and chain stores	1.2	0.6	2.2	1.0	2.21	2.50	0.67	0.87
Delivered and independent stores	0.8	0.3	1.7	0.8	2.50	3.75	0.51	0.78
Retail stores only	78.2	78.5	75.0	77.6	1.14	1.35	0.40	0.46
Chain stores only	39.7	48.7	39.9	47.4	1.19	1.33	0.41	0.45
Independent stores only	37.7	27.2	34.3	25.7	1.08	1.29	0.40	0.44
Chain and independent stores	0.4	0.9	0.1	2.7	0.25	4.25	0.09	0.98
Other†	0.4	1.7	0.7	1.8	2.00	1.42	0.39	0.34
Other sources	0.8	1.1	1.0	0.7	1.50	0.88	0.45	0.24
Gift and/or home-produced	...	0.3	...	0.1	...	0.50	...	0.10
Wholesale outlets	0.8	0.8	1.0	0.6	1.50	1.00	0.45	0.30
No report	...	0.9	...	1.1	...	1.67	...	0.50
Butter:								
Households using	100.0	100.0	100.0	100.0	1.03	1.02	0.36	0.35
Delivered by dairies	11.4	15.1	13.0	17.9	1.18	1.20	0.40	0.41
All delivered	11.4	15.1	13.0	17.9	1.18	1.20	0.40	0.41
Retail stores only	85.9	82.3	83.9	78.8	1.00	0.97	0.35	0.34
Chain stores only	47.3	61.2	46.1	55.6	1.00	0.92	0.35	0.33
Independent stores only	38.6	20.7	37.8	22.5	1.01	1.10	0.36	0.37
Other†	...	0.4	...	0.7	...	2.00	...	0.67
Other sources	2.7	1.5	3.1	2.1	1.17	1.44	0.39	0.44
Gift and/or home-produced	1.3	0.4	1.5	0.3	1.17	0.75	0.40	0.25
Wholesale outlets	1.4	1.1	1.6	1.8	1.17	1.67	0.38	0.50
No report	...	1.1	...	1.2	...	1.08	...	0.38

---

* Delivered plus any combination of retail stores other than above.

† Includes coöperative, delicatessen, drug store, farmer's market, cannery market, commissary, creamery, health food store, dairy, ice cream parlor or wagon, etc.

‡ Less than 0.05 per cent.

Table 19A. DAIRY PRODUCTS IN THE DIET: Proportions of Recommended Quantities of Various Nutrients* Which Were Supplied by Dairy Products Consumed During One Week, by Households in Oakland and Los Angeles

Products	Calories	Protein	Calcium	Iron	Vitamin A	Thiamine	Riboflavin	Niacin	Ascorbic acid
	per cent	per cent	per cent	per cent	per cent	per cent	per cent	per cent	per cent
Oakland:									
All dairy products	23.37	39.87	84.07	8.14	34.87	16.72	70.90	4.43	11.07
All fluid milk	12.88	26.43	62.56	6.03	15.02	14.10	55.21	3.39	10.05
All whole milk	12.13	24.11	57.38	5.78	14.88	12.91	50.46	3.03	9.30
Other fluid milk	0.74	2.32	5.18	0.25	0.14	1.19	4.75	0.36	0.75
Half-and-half	0.76	0.70	1.54	0.08	1.43	0.36	1.36	0.12	0.21
All cream	0.49	0.17	0.37	0.02	1.11	0.08	0.33	0.02	0.05
Evaporated milk	1.37	2.74	6.23	0.36	2.09	0.95	5.62	0.39	0.38
Condensed milk, dry milk, and infant formula	0.14	0.25	0.61	0.14	0.25	0.15	0.60	0.08	0.11
Cottage cheese	0.67	3.62	1.30	0.42	0.58	0.26	2.40	0.14	. . .
American Cheddar cheese	1.51	3.75	7.13	0.78	2.81	0.18	2.52	0.02	. . .
Other cheese	0.46	0.95	1.76	0.15	0.94	0.02	0.63	0.01	. . .
Frozen desserts	1.48	1.14	2.31	0.16	1.87	0.60	2.14	0.15	0.27
Butter	3.61	0.12	0.26	. . .	8.77	0.02	0.09	0.11	. . .
Los Angeles:									
All dairy products	26.12	45.42	93.90	9.03	38.46	18.73	78.81	4.98	12.22
All fluid milk	14.51	29.45	69.26	6.59	16.90	15.83	61.35	3.88	11.14
All whole milk	13.54	26.57	62.73	6.28	16.53	14.33	55.62	3.37	10.24
Other fluid milk	0.97	2.88	6.53	0.31	0.37	1.51	5.73	0.51	0.90
Half-and-half	1.13	1.03	2.27	0.11	2.14	0.54	2.03	0.18	0.31
All cream	0.58	0.24	0.53	0.03	1.27	0.13	0.48	0.04	0.08
Evaporated milk	1.11	2.21	4.97	0.29	1.70	0.76	4.52	0.31	0.30
Condensed milk, dry milk, and infant formula	0.20	0.41	0.97	0.10	0.25	0.22	0.92	0.07	0.11
Cottage cheese	0.88	4.67	1.68	0.55	0.75	0.34	3.10	0.18	. . .
American Cheddar cheese	1.84	4.52	8.52	0.94	3.40	0.22	3.04	0.02	. . .
Other cheese	0.69	1.55	3.01	0.25	1.41	0.03	0.99	0.02	. . .
Frozen desserts	1.58	1.22	2.44	0.17	1.94	0.64	2.29	0.17	0.28
Butter	3.60	0.12	0.25	. . .	8.70	0.02	0.09	0.11	. . .

---

* "Recommended Dietary Allowances," Revised, 1953, National Academy of Sciences—National Research Council Publication 302, 1953, Washington, D. C., p. 22.

Table 20A. DAIRY PRODUCTS IN THE DIET: Proportions of Various Nutrients Provided by All Dairy Products Consumed During One Week, Which Were Supplied by Each Product in Oakland and Los Angeles

Products	Calories	Protein	Calcium	Iron	Vitamin A	Thiamine	Riboflavin	Niacin	Ascorbic acid
	per cent	per cent	per cent	per cent	per cent	per cent	per cent	per cent	per cent
Oakland:									
All dairy products	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
All fluid milk	55.09	66.29	74.41	74.05	43.05	84.29	77.86	76.41	90.83
All whole milk	51.92	60.46	68.25	70.99	42.65	77.18	71.16	68.35	84.09
Other fluid milk	3.17	5.83	6.16	3.06	0.40	7.11	6.70	8.06	6.74
Half-and-half	3.23	1.75	1.84	0.93	4.11	2.15	1.92	2.70	1.90
All cream	2.11	0.42	0.44	0.22	3.19	0.53	0.46	0.55	0.43
Evaporated milk	5.85	6.88	7.41	4.43	6.01	5.66	7.92	8.71	3.41
Condensed milk, dry milk, and infant formula	0.60	0.63	0.72	1.78	0.71	0.93	0.85	1.75	1.01
Cottage cheese	2.87	9.07	1.55	5.20	1.66	1.55	3.39	3.24	...
American Cheddar cheese	6.48	9.41	8.48	9.55	8.05	1.08	3.56	0.37	...
Other cheese	1.97	2.38	2.10	1.87	2.71	0.12	0.89	0.29	...
Frozen desserts	6.35	2.87	2.74	1.97	5.36	3.56	3.03	3.52	2.42
Butter	15.45	0.30	0.31	...	25.15	0.13	0.12	2.46	...
Los Angeles:									
All dairy products	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
All fluid milk	55.54	64.83	73.75	73.02	43.93	84.51	77.85	77.87	91.13
All whole milk	51.83	58.49	66.80	69.53	42.97	76.47	70.57	67.68	83.77
Other fluid milk	3.71	6.34	6.95	3.49	0.96	8.04	7.28	10.19	7.36
Half-and-half	4.34	2.28	2.42	1.24	5.56	2.86	2.57	3.58	2.56
All cream	2.21	0.54	0.56	0.30	3.31	0.69	0.61	0.73	0.62
Evaporated milk	4.26	4.86	5.30	3.22	4.41	4.09	5.74	6.26	2.49
Condensed milk, dry milk, and infant formula	0.76	0.90	1.03	1.08	0.65	1.21	1.16	1.53	0.88
Cottage cheese	3.36	10.29	1.78	6.06	1.95	1.80	3.93	3.74	...
American Cheddar cheese	7.06	9.96	9.08	10.39	8.85	1.17	3.86	0.40	...
Other cheese	2.64	3.40	3.21	2.81	3.68	0.16	1.26	0.38	...
Frozen desserts	6.05	2.68	2.60	1.88	5.05	3.39	2.91	3.34	2.32
Butter	13.78	0.26	0.27	...	22.61	0.12	0.11	2.17	...

Table 21A. TOTAL EXPENSE FOR DAIRY PRODUCTS: Average Expense per Household and per Person, During One Week in Summer and One Week in Winter, by All (305) and by the Same (262) Households in Sacramento

Classes	Average expense							
	Per household				Per person			
	Same households		All households		Same households		All households	
	Summer	Winter	Summer	Winter	Summer	Winter	Summer	Winter
All households	$5.60	$4.74	$5.57	$4.75	$1.66	$1.43	$1.65	$1.42
Annual family income:								
Less than $2,000	4.61	3.47	4.42	3.36	1.95	1.47	1.88	1.47
$2,000–2,999	4.03	3.47	4.56	3.64	1.43	1.25	1.44	1.28
$3,000–3,999	5.15	4.62	5.08	4.64	1.51	1.35	1.52	1.33
$4,000–5,999	5.84	4.83	5.86	4.94	1.56	1.41	1.62	1.45
$6,000 and over	7.22	5.75	6.95	5.62	2.00	1.58	1.92	1.54
No report	3.03	3.65	3.03	3.57	1.18	1.27	1.18	1.25
Number of persons in household:								
Two	3.79	2.84	3.79	2.86	1.91	1.43	1.90	1.44
Three	4.83	4.45	4.82	4.31	1.65	1.54	1.65	1.49
Four	6.05	5.18	6.07	5.23	1.54	1.32	1.55	1.34
All other	8.84	7.75	8.71	7.79	1.61	1.43	1.59	1.43
Weekly food expense:								
Less than $10	2.95	1.22	2.95	1.35	1.32	0.58	1.32	0.65
$10–19.99	3.76	3.36	3.72	3.32	1.49	1.38	1.50	1.38
$20–29.99	5.02	4.57	4.98	4.57	1.55	1.37	1.56	1.37
$30–39.99	6.66	6.21	6.84	6.16	1.74	1.38	1.71	1.39
$40 and over	9.97	9.04	9.63	9.35	1.91	1.83	1.90	1.79
No report	4.72	3.76	4.95	3.76	2.02	1.40	1.86	1.40

Meals away from home (per cent):								
Less than 10	5.53	4.85	5.51	4.91	1.55	1.35	1.55	1.36
10–19	5.44	4.69	5.42	4.66	1.81	1.59	1.79	1.55
20–29	7.29	4.38	6.54	4.13	2.56	1.69	2.41	1.67
30–39	5.66	3.46	6.19	3.46	2.15	1.81	2.40	1.81
40–52.4	4.98	...	4.98	...	3.61	...	3.61	...
Occupation of major earner:								
Professional and managerial	6.35	5.09	6.24	5.01	1.78	1.46	1.80	1.46
Clerical and sales	5.60	4.84	5.61	4.39	1.60	1.49	1.63	1.51
Craftsmen and operatives	5.70	4.60	5.64	4.71	1.56	1.26	1.56	1.28
Other occupations	5.20	4.90	5.10	4.78	1.68	1.56	1.57	1.46
Retired, unemployed, etc.	3.62	3.64	3.79	3.88	1.65	1.55	1.64	1.53
Employment of homemaker:								
Employed	5.27	4.26	5.14	4.32	1.63	1.41	1.62	1.40
Not employed	5.72	4.93	5.72	4.91	1.66	1.43	1.66	1.43
Education of homemaker:								
Eighth grade or less	4.47	4.30	4.50	4.28	1.56	1.50	1.56	1.44
Some high school	5.43	4.48	5.54	4.65	1.40	1.30	1.46	1.33
High school graduate	5.56	4.66	5.54	4.65	1.70	1.43	1.68	1.42
Some college	6.51	5.13	6.27	5.23	1.76	1.42	1.77	1.44
College graduate	6.36	5.63	6.32	5.52	1.86	1.62	1.86	1.60
None and no report	...	4.34	5.25	3.33	...	1.45	1.05	1.12
Color of homemaker:								
White	5.63	4.69	5.58	4.72	1.67	1.43	1.67	1.44
Nonwhite	5.02	6.13	5.30	5.75	1.33	1.35	1.29	1.16

Table 22A. TOTAL CONSUMPTION OF DAIRY PRODUCTS: Average Quantities (Milk Equivalent) Used per Household and per Person, During One Week in Summer and One Week in Winter, by All (305) and by the Same (262) Households in Sacramento

Classes	Average quantities (milk equivalent)							
	Per household				Per person			
	Same households		All households		Same households		All households	
	Summer	Winter	Summer	Winter	Summer	Winter	Summer	Winter
	qts.	qts.	qts.	qts.	qts.	qts.	qts.	qts.
All households	20.67	17.81	20.49	17.88	6.11	5.36	6.08	5.36
Annual family income:								
Less than $2,000	16.60	13.25	15.68	12.57	7.03	5.61	6.68	5.50
$2,000–2,999	15.31	14.26	17.31	14.94	5.45	5.12	5.46	5.23
$3,000–3,999	19.76	18.32	19.39	18.72	5.81	5.35	5.80	5.35
$4,000–5,999	22.26	17.91	22.10	18.38	5.96	5.22	6.12	5.38
$6,000 and over	24.77	20.55	24.03	19.89	6.87	5.64	6.65	5.45
No report	9.84	13.31	9.84	12.86	3.82	4.64	3.82	4.50
Number of persons in household:								
Two	12.66	9.97	12.54	9.88	6.39	5.03	4.99	6.31
Three	16.97	16.32	17.03	15.62	5.80	5.66	5.40	5.84
Four	23.19	20.34	23.20	20.55	5.92	5.20	5.26	5.93
All other	34.75	29.83	34.24	30.47	6.32	5.52	5.61	6.24
Weekly food expense:								
Less than $10	8.55	6.68	8.55	6.79	3.82	3.19	3.82	3.28
$10–19.99	13.86	12.80	13.62	12.55	5.50	5.28	5.51	5.21
$20–29.99	19.13	17.32	18.90	17.65	5.91	5.18	5.93	5.28

$30–39.99	23.53	24.22	24.28	23.54	6.16	5.38	6.08	5.30
$40 and over	36.99	30.82	35.67	31.93	7.07	6.24	7.02	6.10
No report	17.02	12.94	18.29	12.94	7.30	4.81	6.88	4.81
Meals away from home (per cent):								
Less than 10	21.21	18.81	20.94	19.05	5.96	5.25	5.89	5.28
10–19	18.32	16.63	18.73	16.69	6.08	5.63	6.17	5.56
20–29	21.70	14.99	19.67	13.86	7.62	5.79	7.25	5.60
30–39	21.12	10.77	23.02	10.77	8.00	5.62	8.92	5.62
40–52.4	15.62	....	15.62	....	11.32	...	11.32	...
Occupation of major earner:								
Professional and managerial	22.95	18.84	22.36	18.34	6.43	5.40	6.44	5.35
Clerical and sales	20.21	17.33	20.56	17.44	5.77	5.32	5.97	5.39
Craftsmen and operatives	21.90	18.08	21.51	18.62	6.00	4.97	5.94	5.07
Other occupations	19.86	18.78	19.75	18.65	6.42	5.99	6.07	5.71
Retired, unemployed, etc.	12.03	13.51	12.44	14.52	5.48	5.74	5.36	5.72
Employment of homemaker:								
Employed	19.30	15.85	18.86	16.02	5.98	5.22	5.94	5.19
Not employed	21.15	18.62	21.09	18.58	6.15	5.42	6.13	5.41
Education of homemaker:								
Eighth grade or less	17.29	16.21	17.18	16.41	6.04	5.64	5.96	5.53
Some high school	20.62	17.17	20.80	17.75	5.31	4.97	5.46	5.07
High school graduate	20.04	17.06	20.05	17.08	6.13	5.23	6.10	5.23
Some college	23.96	20.47	23.12	20.59	6.49	5.65	6.52	5.66
College graduate	23.05	19.62	22.72	19.40	6.73	5.63	6.67	5.63
None and no report	....	16.11	19.64	12.06	...	5.37	3.93	4.05
Color of homemaker:								
White	20.67	17.62	20.45	17.74	6.14	5.38	6.13	5.41
Nonwhite	20.37	23.14	21.35	21.73	5.38	5.09	5.20	4.40

Table 23A. THE MAJOR DAIRY PRODUCTS: Average Quantities (Milk Equivalent) and Average Expense per Household and per Person, During One Week in Summer and One Week in Winter, by the Same Households in Sacramento

Products	Quantities (milk equivalent)						Expense					
	Average quantities				Per cent of total		Average expense				Per cent of total	
	Per household		Per person				Per household		Per person			
	Summer	Winter	Summer	Winter	Summer	Winter	Summer	Winter	Summer	Winter	Summer	Winter
	qts.	qts.	qts.	qts.								
All dairy products	20.67	17.81	6.11	5.36	100.0	100.0	$5.60	$4.74	$1.66	$1.43	100.0	100.0
All fluid milk	13.95	11.84	4.12	3.57	67.5	66.5	2.91	2.47	0.86	0.74	52.0	52.1
All whole milk	12.67	10.52	3.74	3.17	61.3	59.1	2.68	2.22	0.79	0.67	47.8	46.9
Other fluid milk	1.28	1.32	0.38	0.40	6.2	7.4	0.23	0.25	0.07	0.07	4.5	5.5
Nonfat milk	0.57	0.76	0.17	0.23	2.8	4.3	0.10	0.14	0.03	0.04	1.8	2.9
Buttermilk	0.41	0.40	0.12	0.12	2.0	2.2	0.07	0.08	0.02	0.02	1.3	1.6
Chocolate drink	0.30	0.16	0.09	0.05	1.4	0.9	0.06	0.03	0.02	0.01	1.1	0.7
Yogurt	*	*	*	*	*	*	*	*	*	*	*	*
Goat milk	*	...	*	...	*	...	†	...	†	...	*	...
	lbs.	lbs.	lbs.	lbs.								
Half-and-half	0.25	0.30	0.08	0.09	1.2	1.7	0.18	0.21	0.05	0.06	3.1	4.5
All cream	0.06	0.05	0.02	0.02	0.3	0.3	0.12	0.12	0.04	0.04	2.2	2.4
Table cream	0.01	*	0.01	*	0.1	*	0.02	0.01	0.01	*	0.3	0.1
Whipping cream	0.04	0.04	0.01	0.01	0.2	0.2	0.08	0.09	0.02	0.03	1.4	1.8

Whipped cream	0.01	*	*	*	*	*	0.02	*	0.01	*	0.3	0.1
Sour cream	*	0.01	*	0.01	*	0.1	*	0.02	*	0.01	0.1	0.4
All-purpose cream	*	...	*	...	*	...	*	...	*	...	0.1	...
Evaporated milk	1.18	1.15	0.35	0.34	5.7	6.4	0.20	0.20	0.06	0.06	3.6	4.2
Condensed milk, dry milk, and infant formula	0.15	0.34	0.04	0.10	0.7	1.9	0.02	0.04	0.01	0.01	0.3	0.9
Condensed milk	0.02	0.02	*	0.01	0.1	0.1	*	0.01	*	*	0.1	0.1
Whole dry milk	0.01	...	*	...	*	...	*	...	*	...	*	...
Nonfat dry milk	0.10	0.27	0.03	0.08	0.5	1.5	0.01	0.02	0.01	0.01	0.1	0.5
Canned infant formula	0.02	0.05	0.01	0.01	0.1	0.3	0.01	0.01	*	*	0.1	0.3
Cottage cheese	1.61	1.36	0.48	0.41	7.8	7.6	0.34	0.29	0.10	0.09	6.1	6.2
American Cheddar cheese	1.87	1.78	0.55	0.53	9.0	10.0	0.41	0.40	0.12	0.12	7.4	8.4
Other cheese	0.39	0.35	0.11	0.11	1.9	2.0	0.13	0.15	0.04	0.05	2.3	3.2
Other hard cheese	0.34	0.29	0.10	0.09	1.7	1.6	0.09	0.08	0.03	0.03	1.6	1.8
Cream cheese, cream cheese spreads	0.05	0.06	0.01	0.02	0.2	0.4	0.04	0.07	0.01	0.02	0.7	1.4
Frozen desserts	1.21	0.64	0.36	0.19	5.9	3.6	0.92	0.48	0.27	0.15	16.4	10.1
Ice cream	1.07	0.55	0.32	0.16	5.2	3.1	0.86	0.45	0.25	0.14	15.3	9.5
Sherbet	0.01	*	*	*	0.1	*	0.03	0.01	0.01	*	0.6	0.2
Ice milk	0.13	0.09	0.04	0.03	0.6	0.5	0.03	0.02	0.01	0.01	0.6	0.4
Butter	...	...	...	...	...	...	0.37	0.38	0.11	0.11	6.6	8.0

---

* Less than 0.005 quart, $0.005 or 0.005 per cent.
† Gift.

Table 24A. THE MAJOR DAIRY PRODUCTS: Average Quantities Used per Household and per Person by All Households and by Households Using, During One Week in Summer and One Week in Winter, by the Same Households in Sacramento

Products	All households				Per cent of households using each product		Households using			
	Average quantities						Average quantities			
	Per household		Per person				Per household		Per person	
	Summer	Winter	Summer	Winter	Summer	Winter	Summer	Winter	Summer	Winter
	qts.	qts.	qts.	qts.			qts.	qts.	qts.	qts.
All fluid milk	13.95	11.84	4.12	3.57	98.9	99.6	14.11	11.89	4.15	3.57
All whole milk	12.67	10.52	3.74	3.17	96.2	97.3	13.08	10.74	3.71	3.15
Other fluid milk	1.28	1.32	0.38	0.40	39.7	35.9	3.47	3.90	1.00	1.08
Nonfat milk	0.57	0.76	0.17	0.23	11.1	11.8	5.17	6.44	1.56	1.76
Buttermilk	0.41	0.40	0.12	0.12	20.2	19.5	2.00	2.04	0.62	0.58
Chocolate drink	0.30	0.16	0.09	0.05	14.1	8.8	2.08	1.76	0.51	0.47
Yogurt	*	*	*	*	0.4	0.4	0.50	1.00	0.18	0.26
Goat milk	*	...	*	...	0.4	...	1.00	...	0.17	...
	lbs.	lbs.	lbs.	lbs.			lbs.	lbs.	lbs.	lbs.
Half-and-half	0.64	0.76	0.19	0.23	29.4	32.1	2.17	2.36	0.70	0.74
All cream	0.18	0.16	0.05	0.05	19.5	17.9	0.91	0.90	0.27	0.27
Table cream	0.03	0.01	0.01	*	3.4	1.5	0.94	0.66	0.38	0.21
Whipping cream	0.12	0.11	0.04	0.04	15.3	15.3	0.78	0.74	0.22	0.21

Whipped cream	0.01	*	*	*	1.9	0.8	0.72	0.28	0.20	0.13
Sour cream	0.01	0.04	*	0.01	0.8	1.9	0.80	1.91	0.22	0.50
All-purpose cream	0.01	...	*	...	0.8	...	0.80	...	0.48	...
Evaporated milk	1.27	1.23	0.37	0.37	51.5	58.8	2.46	2.10	0.70	0.60
Condensed milk, dry milk, and infant formula	0.06	0.12	0.02	0.04	6.5	9.5	0.94	1.29	0.27	0.36
Condensed milk	0.01	0.01	*	*	1.5	1.1	0.78	1.25	0.22	0.58
Whole dry milk	*	...	*	...	1.1	...	0.25	...	0.09	...
Nonfat dry milk	0.02	0.06	0.01	0.02	3.4	8.0	0.64	0.75	0.18	0.20
Canned infant formula	0.03	0.05	0.01	0.02	0.4	0.8	6.34	6.37	1.59	1.64
Cottage cheese	1.15	0.97	0.34	0.29	74.4	67.6	1.54	1.44	0.45	0.43
American Cheddar cheese	0.58	0.55	0.17	0.17	68.7	64.9	0.85	0.85	0.25	0.24
Other cheese	0.16	0.16	0.05	0.05	27.5	32.1	0.58	0.51	0.17	0.14
Other hard cheese	0.11	0.09	0.03	0.03	15.3	14.9	0.69	0.60	0.22	0.17
Cream cheese, cream cheese spreads	0.05	0.07	0.02	0.02	15.3	20.6	0.35	0.37	0.10	0.10
Frozen desserts	2.09	1.07	0.62	0.32	75.2	54.6	2.78	1.97	0.81	0.54
Ice cream	1.92	0.98	0.57	0.29	73.7	51.1	2.60	1.91	0.76	0.52
Sherbet	0.09	0.03	0.03	0.01	4.6	3.4	1.96	1.08	0.57	0.45
Ice milk	0.08	0.06	0.02	0.02	3.4	2.7	2.34	2.17	0.76	0.56
Butter	0.46	0.48	0.14	0.14	46.2	47.3	0.99	1.01	0.30	0.32

* Less than 0.005 quart or pound.

Table 25A. USE OF FLUID MILK AS A BEVERAGE: Average Quantities Used by Family Members Classified by Age and Sex, During One Week in Summer and One Week in Winter, by the Same Households in Sacramento

Family members	Number		Average quantities per family member									
			All family members		Family members drinking milk							
					All family members using		Away from and at home		At home only		Away from home only	
	Summer	Winter	Summer	Winter	Summer	Winter	Summer	Winter	Summer	Winter	Summer	Winter
			qts.	qts.	qts.	qts.	qts.	qts.	qts.	qts.	qts.	qts.
All family members 1 year and over...	874	874	3.15	2.74	4.18	3.75	5.91	5.29	3.97	3.35	6.44	2.75
Children........................	246	248	4.81	4.74	4.93	4.80	5.38	5.31	4.86	4.67	5.65	0.25
1–3........................	77	77	4.43	4.27	4.55	4.38	5.20	4.41	4.48	4.38	4.75	...
4–6........................	60	57	4.61	4.13	4.61	4.13	5.94	4.98	4.51	3.82	...	...
7–9........................	66	66	5.14	5.00	5.22	5.00	4.54	5.35	5.29	4.95	...	0.25
10–12........................	43	48	5.28	5.87	5.68	6.00	5.88	6.37	5.54	6.01	7.00	0.25
Adolescents........................	80	79	4.49	4.88	4.99	5.35	7.92	6.55	4.58	4.81	...	3.38
Girls........................	49	49	3.87	4.42	4.41	4.92	9.38	5.67	4.16	4.51	...	5.25
13–15........................	24	22	4.55	4.36	5.20	5.05	14.25	5.53	4.75	4.63	...	...
16–20........................	25	27	3.21	4.46	3.65	4.82	4.50	5.88	3.61	4.44	...	5.25

Boys	31	30	5.48	5.63	5.86	6.03	7.50	8.03	5.34	5.28	. . .	1.50
13–15	17	19	5.13	5.58	5.45	6.24	8.40	9.25	4.11	4.90	. . .	1.50
16–20	14	11	5.91	5.72	6.37	5.72	5.25	5.58	6.57	5.77	. . .	. . .
Adults	548	546	2.20	1.53	3.49	2.59	5.71	4.63	3.26	2.22	7.75	3.38
Women	285	286	1.59	1.03	2.70	1.91	3.88	3.52	2.65	1.75	1.25	2.13
21–29	46	42	1.95	1.58	2.89	2.28	4.00	4.75	2.82	1.70	1.25	3.50
30–39	82	84	1.57	1.00	2.67	1.87	5.00	3.00	2.52	1.75	. . .	0.75
40–49	58	57	1.49	1.07	2.98	2.03	. . .	. . .	2.98	2.03	. . .	. . .
50–59	49	51	1.48	0.84	2.34	1.78	2.00	2.00	2.36	3.77	. . .	. . .
60–69	33	35	2.00	0.87	2.75	1.69	. . .	2.50	2.75	1.59	. . .	. . .
70 and over	17	17	0.62	0.54	2.10	1.16	. . .	. . .	2.30	1.16	. . .	. . .
Men	263	260	2.87	2.08	4.23	3.22	6.49	5.05	3.88	2.71	11.00	4.00
21–29	36	33	4.44	3.51	5.71	4.45	6.00	7.29	5.69	3.57	. . .	0.50
30–39	71	68	2.99	1.72	4.17	2.61	3.68	4.47	3.92	1.99	11.00	6.00
40–49	60	63	2.52	1.98	4.20	3.29	9.67	4.36	3.11	2.96	. . .	. . .
50–59	42	42	2.47	1.93	3.85	3.25	6.88	5.54	3.32	2.29	. . .	3.50
60–69	29	29	2.53	1.70	4.08	2.74	. . .	3.25	4.08	2.71	. . .	. . .
70 and over	25	25	2.11	2.09	2.93	3.26	. . .	1.88	2.93	3.26	. . .	. . .
Mean age, years	30.6	31.1										

Table 26A. THE MAJOR DAIRY PRODUCTS: Average Quantities Used and Expense per Household and per Person in the Same Households With and Without Children, During One Week in Summer and One Week in Winter, in Sacramento

Kind of product and type of household	Average quantities				Average expense				Total dairy products			
	Per household		Per person		Per household		Per person		Milk equivalent		Expense	
	Summer	Winter	Summer	Winter	Summer	Winter	Summer	Winter	Summer	Winter	Summer	Winter
	qts.	qts.	qts.	qts.					per cent	per cent	per cent	per cent
Fluid milk:												
Households with children	18.66	16.18	4.42	3.81	$3.90	$3.41	$0.92	$0.80	71.82	70.22	58.49	57.38
Households without children	7.92	6.47	3.42	2.99	1.65	1.31	0.71	0.60	57.07	57.09	38.87	40.23
	lbs.	lbs.	lbs.	lbs.								
Half-and-half:												
Households with children	0.47	0.64	0.11	0.15	0.13	0.18	0.03	0.04	0.73	1.11	1.98	2.98
Households without children	0.85	0.91	0.37	0.42	0.23	0.25	0.10	0.12	2.45	3.20	5.51	7.85
All cream:												
Households with children	0.14	0.18	0.03	0.04	0.11	0.13	0.03	0.03	0.19	0.26	1.65	2.19
Households without children	0.22	0.14	0.09	0.06	0.14	0.09	0.06	0.04	0.52	0.40	3.21	2.87
Evaporated milk:												
Households with children	1.50	1.46	0.36	0.34	0.24	0.23	0.06	0.06	5.37	5.91	3.56	3.93
Households without children	0.97	0.95	0.42	0.44	0.16	0.16	0.07	0.07	6.49	7.75	3.66	4.81
Cottage cheese:												
Households with children	1.26	1.01	0.30	0.24	0.37	0.30	0.09	0.07	6.80	6.12	5.61	5.12
Households without children	1.01	0.92	0.43	0.43	0.30	0.28	0.13	0.13	10.15	11.40	6.97	8.61
American Cheddar cheese:												
Households with children	0.64	0.64	0.15	0.15	0.44	0.44	0.10	0.10	7.96	8.90	6.68	7.39
Households without children	0.50	0.45	0.22	0.21	0.37	0.35	0.16	0.16	11.69	12.67	8.75	10.74
Frozen desserts:												
Households with children	2.28	1.30	0.54	0.31	0.98	0.59	0.23	0.14	5.10	3.38	14.64	9.82
Households without children	1.84	0.79	0.79	0.37	0.84	0.35	0.36	0.16	7.74	4.23	19.87	10.86
Butter:*												
Households with children	0.45	0.53	0.11	0.12	0.36	0.41	0.09	0.10	*	*	5.40	7.01
Households without children	0.47	0.42	0.20	0.19	0.39	0.33	0.17	0.16	*	*	9.10	10.22

* No milk equivalent in protein and minerals.

Table 27A. THE MAJOR DAIRY PRODUCTS: Average Quantities Used and Expense per Household and per Person in the Same Two-Adult Households, During One Week in Summer and One Week in Winter, in Sacramento

Kind of product and type of two-adult household	Average quantities				Average expense				Total dairy products			
	Per household		Per person		Per household		Per person		Milk equivalent		Expense	
	Summer	Winter	Summer	Winter	Summer	Winter	Summer	Winter	Summer	Winter	Summer	Winter
	qts.	qts.	qts.	qts.					per cent	per cent	per cent	per cent
Fluid milk:												
All households	11.23	19.62	4.02	3.52	$2.35	$2.02	$0.84	$0.74	65.2	67.4	48.7	52.4
No children	9.48	5.37	3.30	2.78	1.35	1.10	0.69	0.59	54.2	55.9	36.7	59.9
One child	11.43	10.09	3.86	3.63	2.39	2.16	0.81	0.78	67.4	69.3	52.6	53.1
Two children	17.58	14.53	4.59	3.73	3.71	3.09	0.97	0.79	72.8	73.6	58.7	61.8
Three children	23.30	25.18	4.93	5.16	4.86	5.24	1.03	1.07	70.9	79.4	53.2	65.3
	lbs.	lbs.	lbs.	lbs.								
Half-and-half:												
All households	0.59	0.66	0.21	0.24	0.17	0.18	0.06	0.07	1.4	1.8	3.4	4.8
No children	0.69	0.70	0.35	0.36	0.19	0.20	0.10	0.10	2.3	2.9	5.2	7.1
One child	0.46	0.58	0.16	0.21	0.13	0.16	0.04	0.06	1.1	1.6	2.9	4.0
Two children	0.56	0.69	0.15	0.18	0.16	0.18	0.04	0.05	0.9	1.4	2.5	3.6
Three children	0.43	0.49	0.09	0.10	0.12	0.14	0.02	0.03	0.5	0.6	1.3	1.7
All cream:												
All households	0.19	0.10	0.07	0.04	0.13	0.08	0.05	0.03	0.4	0.2	2.7	2.0
No children	0.20	0.11	0.10	0.06	0.12	0.08	0.06	0.04	0.6	0.4	3.4	2.9
One child	0.03	0.11	0.01	0.04	0.02	0.09	0.01	0.03	0.1	0.2	0.5	2.1
Two children	0.25	0.08	0.07	0.02	0.19	0.06	0.05	0.02	0.3	0.1	3.0	1.2
Three children	0.41	0.09	0.09	0.02	0.32	0.07	0.07	0.01	0.4	0.1	3.5	0.9
Evaporated milk:												
All households	1.01	0.97	0.36	0.35	0.16	0.15	0.06	0.06	5.5	6.3	3.4	4.0
No children	0.94	0.91	0.48	0.47	0.15	0.15	0.08	0.08	7.3	8.8	4.1	5.4

One child	0.97	1.04	0.33	0.37	0.16	0.16	0.05	0.06	5.3	6.6	3.4	4.0
Two children	1.12	1.02	0.29	0.26	0.18	0.16	0.04	0.04	4.3	4.8	2.8	3.1
Three children	1.31	1.07	0.28	0.22	0.20	0.17	0.04	0.04	3.7	3.2	2.2	2.1
Cottage cheese:												
All households	1.08	0.85	0.39	0.31	0.32	0.26	0.11	0.09	8.7	8.4	6.6	6.7
No children	0.94	0.91	0.48	0.47	0.28	0.28	0.14	0.14	11.0	13.2	7.6	10.6
One child	1.06	0.70	0.36	0.25	0.32	0.22	0.11	0.08	8.8	6.7	7.1	5.3
Two children	1.30	0.82	0.34	0.21	0.37	0.25	0.10	0.06	7.5	5.8	5.9	4.9
Three children	1.30	1.00	0.27	0.20	0.38	0.30	0.08	0.06	5.5	4.4	4.1	3.7
American Cheddar cheese:												
All households	0.50	0.42	0.18	0.15	0.36	0.31	0.13	0.11	9.3	9.4	7.4	8.0
No children	0.43	0.34	0.22	0.18	0.33	0.27	0.17	0.14	11.7	11.3	8.9	9.8
One child	0.52	0.46	0.18	0.17	0.35	0.37	0.12	0.13	9.9	10.2	7.8	9.2
Two children	0.54	0.48	0.14	0.12	0.38	0.33	0.10	0.08	7.2	7.8	6.1	9.2
Three children	0.80	0.68	0.17	0.14	0.49	0.34	0.10	0.07	7.8	6.9	5.3	4.3
Frozen desserts:												
All households	1.94	0.80	0.69	0.29	0.87	0.35	0.31	0.13	6.7	3.1	17.9	9.2
No children	1.72	0.64	0.88	0.33	0.78	0.28	0.40	0.15	8.4	3.5	21.3	10.2
One child	1.41	0.92	0.48	0.33	0.66	0.38	0.22	0.14	4.9	3.5	14.4	9.5
Two children	2.13	1.03	0.56	0.26	0.93	0.42	0.24	0.11	5.2	3.1	14.8	8.5
Three children	4.76	0.96	1.01	0.20	1.99	0.57	0.42	0.12	9.4	1.7	21.8	7.1
Butter:*												
All households	0.42	0.43	0.15	0.16	0.34	0.34	0.12	0.12	...	...	7.1	8.8
No children	0.37	0.35	0.19	0.18	0.31	0.27	0.16	0.14	...	...	8.3	10.0
One child	0.51	0.50	0.17	0.18	0.42	0.39	0.14	0.14	...	...	9.2	9.5
Two children	0.31	0.37	0.08	0.09	0.26	0.29	0.07	0.08	...	...	4.1	5.9
Three children	0.88	1.14	0.19	0.23	0.71	0.87	0.15	0.18	...	...	7.8	10.8

* No milk equivalent in protein and minerals.

Table 28A. SOURCES OF DAIRY PRODUCTS: Sources from which Whole Milk, Half-and-Half, Cottage Cheese, and Butter Were Purchased, During One Week in Summer and One Week in Winter, by Same Households in Sacramento

Sources	Households securing from each source		Total quantity from each source		Average quantity from each source			
					Per household		Per person	
	Summer	Winter	Summer	Winter	Summer	Winter	Summer	Winter
	per cent	per cent	per cent	per cent	qts.	qts.	qts.	qts.
Whole milk:								
Households using	100.0	100.0	100.0	100.0	13.07	10.73	3.81	3.22
Delivered by dairies	40.9	39.2	46.1	43.1	14.73	11.80	3.91	3.13
All delivered by dairies	34.9	23.5	33.6	22.8	12.57	10.43	3.59	2.89
Delivered and chain stores	3.2	10.2	5.6	12.9	22.81	13.54	4.93	3.58
Delivered and independent stores	2.8	5.5	6.9	7.4	32.64	14.42	5.23	3.27
Retail stores only	58.3	58.8	52.8	55.5	11.83	10.12	3.72	3.28
Chain stores only	40.0	39.6	36.4	32.6	11.86	8.83	3.75	3.10
Independent stores only	15.9	18.0	14.1	21.6	11.59	12.87	3.62	3.63
Chain and independent stores	...	0.4	...	0.2	...	4.00	...	2.11
Other*	2.4	0.8	2.3	1.1	13.00	15.50	3.91	3.18
Other sources	0.8	2.0	1.1	1.4	18.00	7.60	5.03	3.08
Gift and/or home-produced	...	0.4	...	0.1	...	4.00	...	1.79
Wholesale outlets	0.4	1.2	0.5	0.9	16.00	8.00	5.99	3.02
Other	0.4	0.4	0.6	0.4	20.00	10.00	4.46	4.67
					lbs.	lbs.	lbs.	lbs.
Half-and-half:								
Households using	100.0	100.0	100.0	100.0	2.17	2.36	0.70	0.74
Delivered	20.8	16.7	16.3	14.3	1.70	2.02	0.60	0.61
All delivered	20.8	14.3	16.3	11.3	1.70	1.87	0.60	0.59
Delivered and chain stores	...	1.2	...	1.6	...	3.21	...	1.07
Delivered and independent stores	...	1.2	...	1.4	...	2.68	...	0.48

Retail stores only	77.9	82.1	83.4	84.6	2.33	2.43	0.74	0.73
Chain stores only	54.5	58.3	54.3	53.1	2.17	2.15	0.67	0.70
Independent stores only	20.8	23.8	27.5	31.5	2.88	3.13	0.99	0.96
Other*	2.6	...	1.6	...	1.34	...	0.34	...
Other sources	1.3	1.2	0.3	1.1	0.54	2.14	0.20	0.63
Wholesale outlets	1.3	1.2	0.3	1.1	0.54	2.14	0.20	0.63
Cottage cheese:								
Households using	100.0	100.0	100.0	100.0	1.54	1.44	0.45	0.43
Delivered	9.2	5.7	9.5	5.4	1.59	1.37	0.41	0.42
All delivered	9.2	5.7	9.5	5.4	1.59	1.37	0.41	0.42
Retail stores only	89.8	93.2	89.2	93.4	1.53	1.44	0.45	0.43
Chain stores only	69.8	69.5	69.9	68.2	1.55	1.41	0.47	0.43
Independent stores only	19.5	23.7	19.0	25.2	1.50	1.53	0.42	0.41
Other*	0.5	...	0.3	...	1.00	...	0.33	...
Other sources	1.0	1.1	1.3	1.2	2.00	1.50	0.90	0.56
Wholesale outlets	1.0	1.1	1.3	1.2	2.00	1.50	0.90	0.56
Butter:								
Households using	100.0	100.0	100.0	100.0	0.99	1.01	0.30	0.32
Delivered	4.1	1.6	3.8	1.8	0.90	1.12	0.23	0.24
All delivered	4.1	0.8	3.8	0.8	0.90	1.00	0.23	0.27
Delivered and independent stores	...	0.8	...	1.0	...	1.25	...	0.22
Retail stores only	93.4	96.8	90.6	95.0	0.96	0.99	0.30	0.31
Chain stores only	72.8	70.2	70.0	69.2	0.96	1.00	0.30	0.32
Independent stores only	19.8	26.6	19.8	25.8	0.99	0.98	0.32	0.29
Other*	0.8	...	0.8	...	1.00	...	0.33	...
Other sources	1.7	1.6	5.2	3.2	3.12	2.00	0.73	0.88
Gift and/or home-produced	0.9	...	1.0	...	1.25	...	0.21	...
Wholesale outlets	0.8	1.6	4.2	3.2	5.00	2.00	1.87	0.88
No report	0.8	...	0.4	...	0.50	...	0.13	...

---

* Included coöperative, delicatessen, drug store, farmer's market, cannery market, commissary, creamery, health food store, dairy, ice cream parlor or wagon, etc.

Table 29A. SOURCES OF DAIRY PRODUCTS: Proportions of Households Using Whole Milk Who Had None, 100 per cent, 50–99 per cent, or Less than 50 per cent Delivered by Dairies, and Proportions of Total Quantities Consumed by These Households During One Week in Summer and One Week in Winter, in Sacramento

Classes	Proportions delivered by dairies							
	None		100 per cent		50–99 per cent		Less than 50 per cent	
	Summer	Winter	Summer	Winter	Summer	Winter	Summer	Winter
Proportions of households using whole milk (per cent)								
All households	59.1	60.8	34.9	23.5	3.2	13.3	2.8	2.4
Annual family income:								
Less than $2,000	70.0	58.8	25.0	23.5	5.0	11.8	...	5.9
$2,000–2,999	51.9	76.9	48.1	11.6	...	11.5	...	...
$3,000–3,999	60.6	59.3	37.9	22.0	...	17.0	1.5	1.7
$4,000–5,999	61.6	67.5	28.2	16.2	5.1	13.8	5.1	2.5
$6,000 and over	54.5	47.7	36.4	38.4	5.5	10.8	3.6	3.1
No report	50.0	62.5	50.0	25.0	...	12.5	...	...
Weekly food expense:								
Less than $10	33.3	100.0	66.7	...	...	...	...	...
$10–19.99	68.9	64.0	31.1	26.0	...	10.0	...	...
$20–29.99	72.0	52.9	26.5	26.5	1.5	17.7	...	2.9
$30–39.99	46.8	51.5	44.7	27.3	4.3	18.2	4.2	3.0
$40 and over	51.7	65.3	36.5	20.4	5.9	11.2	5.9	3.1
No report	50.0	100.0	50.0	...	...	...	...	...

Two-adult households:								
No children	71.8	77.6	28.2	15.3	...	5.9	...	1.2
One child	62.9	60.6	37.1	21.2	...	18.2	...	...
Two children	51.3	57.9	46.1	26.3	...	13.2	2.6	2.6
Three children	60.0	45.4	40.0	36.4	...	9.1	...	9.1

Proportions of total quantities consumed by households using whole milk (per cent)

All households	53.9	56.9	33.6	22.9	6.2	15.7	6.3	4.5
Annual family income:								
Less than $2,000	58.0	67.8	18.5	20.9	23.5	9.1	...	2.2
$2,000–2,999	54.0	81.5	46.0	4.3	...	14.2	...	...
$3,000–3,999	66.0	61.4	32.0	16.5	...	16.7	2.0	5.4
$4,000–5,999	56.2	61.1	27.9	18.5	7.5	16.4	8.4	4.0
$6,000 and over	39.0	40.1	41.8	39.1	7.8	14.3	11.4	6.5
No report	22.0	48.6	78.0	19.6	...	31.8	...	...
Weekly food expense:								
Less than $10	36.4	100.0	63.6	...	...	...	...	...
$10–19.99	63.4	62.8	36.6	23.4	...	13.8	...	...
$20–29.99	69.0	47.1	25.7	26.9	5.3	17.8	...	8.2
$30–39.99	52.0	54.6	40.2	23.5	2.7	19.5	5.1	2.4
$40 and over	45.1	61.2	33.3	20.5	9.9	13.8	11.7	4.5
No report	27.3	100.0	72.7	...	...	...	...	...
Two-adult households:								
No children	71.1	77.8	28.9	14.4	...	7.1	...	0.7
One child	72.4	58.2	27.6	20.2	...	21.6	...	...
Two children	55.5	63.3	41.9	20.9	...	11.2	2.6	4.6
Three children	49.6	54.3	50.4	29.0	...	12.0	...	4.7

Table 30A. DAIRY PRODUCTS IN THE DIET: Proportions of Recommended Quantities of Various Nutrients* Which Were Supplied by Dairy Products Consumed During One Week in Summer and One Week in Winter, by the Same Households in Sacramento

Products	Calories	Protein	Calcium	Iron	Vitamin A	Thiamine	Riboflavin	Niacin	Ascorbic acid
	per cent	per cent	per cent	per cent	per cent	per cent	per cent	per cent	per cent
Summer:									
All dairy products	28.34	49.60	100.49	9.97	39.66	20.93	87.17	5.47	13.60
All fluid milk	15.81	31.83	73.43	7.29	18.25	17.26	66.51	4.16	12.24
All whole milk	14.68	28.49	66.14	6.90	17.93	15.52	59.69	3.64	11.14
Other fluid milk	1.13	3.34	7.29	0.39	0.32	1.74	6.82	0.52	1.10
Half-and-half	0.74	0.66	1.43	0.07	1.39	0.35	1.30	0.12	0.20
All cream	0.45	0.14	0.30	0.01	1.02	0.07	0.28	0.02	0.04
Evaporated milk	1.47	2.88	6.38	0.38	2.24	1.01	5.91	0.41	0.40
Condensed milk, dry milk, and infant formula	0.14	0.35	0.81	0.07	0.11	0.18	0.77	0.07	0.08
Cottage cheese	0.98	5.15	1.81	0.60	0.84	0.38	3.42	0.21	...
American Cheddar cheese	1.95	4.73	8.76	0.99	3.61	0.23	3.18	0.02	...
Other cheese	0.50	1.10	2.11	0.18	1.02	0.02	0.71	0.01	...
Frozen desserts	3.53	2.67	5.27	0.38	4.48	1.41	5.02	0.37	0.64
Butter	2.77	0.09	0.19	...	6.70	0.02	0.07	0.08	...
Winter:									
All dairy products	24.50	43.58	88.77	8.67	34.95	18.13	71.49	4.83	11.74
All fluid milk	13.46	27.49	63.65	6.21	15.33	14.89	53.79	3.62	10.54
All whole milk	12.40	24.04	56.01	5.82	15.10	13.09	47.18	3.07	9.39
Other fluid milk	1.06	3.45	7.64	0.39	0.23	1.80	6.61	0.55	1.15
Half-and-half	0.89	0.80	1.73	0.09	1.67	0.42	1.46	0.14	0.24
All cream	0.41	0.13	0.28	0.01	0.92	0.07	0.25	0.02	0.04
Evaporated milk	1.45	2.85	6.33	0.38	2.21	1.00	5.47	0.41	0.40
Condensed milk, dry milk, and infant formula	0.28	0.82	1.92	0.15	0.17	0.43	1.71	0.15	0.18
Cottage cheese	0.84	4.41	1.55	0.52	0.72	0.32	2.74	0.18	...
American Cheddar cheese	1.88	4.55	8.47	0.95	3.47	0.22	2.87	0.02	...
Other cheese	0.52	1.03	1.85	0.16	1.07	0.02	0.65	0.01	...
Frozen desserts	1.84	1.41	2.79	0.20	2.32	0.74	2.48	0.19	0.34
Butter	2.93	0.09	0.20	...	7.07	0.02	0.07	0.09	...

---

* "Recommended Dietary Allowances," Revised, 1953, National Academy of Sciences—National Research Council Publication 302, 1953, Washington, D. C., p. 22.

Table 31A. DAIRY PRODUCTS IN THE DIET: Proportions of Various Nutrients Provided by All Dairy Products Which Were Supplied by Each Product Consumed During One Week in Summer and One Week in Winter, by the Same Households in Sacramento

Products	Calories	Protein	Calcium	Iron	Vitamin A	Thiamine	Riboflavin	Niacin	Ascorbic acid
	per cent	per cent	per cent	per cent	per cent	per cent	per cent	per cent	per cent
Summer:									
All dairy products	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
All fluid milk	55.78	64.17	73.07	73.06	46.01	82.43	76.30	76.00	89.99
All whole milk	51.81	57.44	65.81	69.12	45.21	74.12	68.48	66.52	81.88
Other fluid milk	3.97	6.73	7.26	3.94	0.80	8.31	7.82	9.48	8.11
Half-and-half	2.60	1.34	1.42	0.72	3.50	1.66	1.49	2.11	1.49
All cream	1.59	0.28	0.30	0.15	2.57	0.36	0.32	0.38	0.29
Evaporated milk	5.19	5.81	6.35	3.82	5.67	4.83	6.78	7.54	2.95
Condensed milk, dry milk, and infant formula	0.49	0.70	0.81	0.69	0.28	0.87	0.89	1.23	0.60
Cottage cheese	3.45	10.38	1.80	6.06	2.11	1.80	3.92	3.80	...
American Cheddar cheese	6.90	9.53	8.72	9.88	9.11	1.11	3.65	0.39	...
Other cheese	1.76	2.22	2.10	1.82	2.58	0.10	0.81	0.25	...
Frozen desserts	12.47	5.39	5.24	3.80	11.27	6.76	5.76	6.78	4.68
Butter	9.77	0.18	0.19	...	16.90	0.08	0.08	1.52	...
Winter:									
All dairy products	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
All fluid milk	54.91	63.08	71.70	71.67	43.85	82.10	75.24	74.77	89.81
All whole milk	50.59	55.15	63.09	67.10	43.19	72.19	65.99	63.50	79.99
Other fluid milk	4.32	7.93	8.61	4.57	0.66	9.91	9.25	11.27	9.82
Half-and-half	3.62	1.83	1.95	1.00	4.77	2.31	2.05	2.88	2.07
All cream	1.67	0.31	0.32	0.17	2.63	0.39	0.34	0.41	0.32
Evaporated milk	5.93	6.53	7.13	4.34	6.34	5.51	7.65	8.43	3.37
Condensed milk, dry milk, and infant formula	1.15	1.89	2.16	1.71	0.49	2.34	2.39	3.25	1.57
Cottage cheese	3.42	10.11	1.75	5.97	2.05	1.77	3.84	3.68	...
American Cheddar cheese	7.69	10.45	9.54	10.94	9.93	1.24	4.02	0.42	...
Other cheese	2.13	2.36	2.08	1.90	3.06	0.13	0.91	0.31	...
Frozen desserts	7.52	3.23	3.14	2.30	6.64	4.11	3.47	4.03	2.86
Butter	11.96	0.21	0.23	...	20.24	0.10	0.09	1.82	...

APPENDIX B

The following are *titles only* of tables compiled during the research reported in this bulletin. The tables themselves have been recorded on microfilm and are available as follows:

Positive film strips, for use in a microfilm reader, are on deposit in the Agricultural Reference Service, University of California Library, Berkeley, and in the Library of the U. S. Department of Agriculture, in Washington, D.C. These are identified in the card catalog as follows:

Coles, Jessie V., Consumption of dairy products by urban families in
California, microfilm supplement.

Copies of the entire microfilm supplement may be purchased from Library Photographic Service, University of California, Berkeley. The price for the entire strip is $2.50. Checks or money orders should be made payable to The Regents of the University of California, and sent with orders for film to the Library Photographic Service. Specify Misc. Microfilm No. 32.

Copies of individual tables within the microfilm strip, enlarged to approximately 8½″ × 11″, may be obtained from the Library Photographic Service. The cost is $1.50 postpaid for one to four prints; 35 cents postpaid for each additional print. Specify Misc. Microfilm No. 32 and give the numbers of the tables desired.

1B. ALL FLUID MILK: Proportions of Households Using, Average Quantities Used, and Average Expense per Household and per Person During One Week in Oakland and Los Angeles

2B. ALL FLUID MILK: Average Quantities Used and Expense per Household and per Person in Households Classified by Number of Persons in the Household and Annual Income per Person During One Week in Oakland and Los Angeles

3B. ALL FLUID MILK: Average Quantities Used and Expense per Household and per Person in Households With and Without Children Classified by Annual Family Income During One Week in Oakland and Los Angeles

4B. ALL FLUID MILK: Average Quantities Used and Expense per Household and per Person in Two-Adult Households Classified by Number of Children Under 16 Years and Annual Family Income During One Week in Oakland and Los Angeles

5B. HOMOGENIZED MILK: Proportions of Households Using, Average Quantities Used, and Average Expense per Household and per Person During One Week in Oakland and Los Angeles

6B. HOMOGENIZED MILK: Average Quantities Used and Expense per Household and per Person in Households Classified by Number of Persons in the Household and Annual Income per Person During One Week in Oakland and Los Angeles

7B. HOMOGENIZED MILK: Average Quantities Used and Expense per Household and per Person in Households With and Without Children Classified by Annual Family Income During One Week in Oakland and Los Angeles

8B. HOMOGENIZED MILK: Average Quantities Used and Expense per Household and per Person in Two-Adult Households Classified by Number of Children Under 16 Years and Annual Family Income During One Week in Oakland and Los Angeles

9B. WHOLE MILK OTHER THAN HOMOGENIZED MILK: Proportions of Households Using, Average Quantities Used, and Average Expense per Household and per Person During One Week in Oakland and Los Angeles

10B. FLUID MILK OTHER THAN WHOLE MILK: Proportions of Households Using, Average Quantities Used, and Average Expense per Household and per Person During One Week in Oakland and Los Angeles

11B. FLUID MILK OTHER THAN WHOLE MILK: Average Quantities Used and Expense per Household and per Person in Households Classified by Number of Persons in the Household and Annual Income per Person During One Week in Oakland and Los Angeles

12B. FLUID MILK OTHER THAN WHOLE MILK: Average Quantities Used and Expense per Household and per Person in Households With and Without Children Classified by Annual Family Income During One Week in Oakland and Los Angeles

13B. FLUID MILK OTHER THAN WHOLE MILK: Average Quantities Used and Expense per Household and per Person in Two-Adult Households Classified by Number of Children Under 16 Years and Annual Family Income During One Week in Oakland and Los Angeles

14B. USE OF FLUID MILK AS A BEVERAGE: Households Classified by Weekly Food Expense and Annual Family Income and by Quantities Used as a Beverage During One Week in Oakland and Los Angeles

15B. HALF-AND-HALF: Proportions of Households Using, Average Quantities Used, and Average Expense per Household and per Person During One Week in Oakland and Los Angeles

16B. HALF-AND-HALF: Average Quantities Used and Expense per Household and per Person in Households Classified by Number of Persons in the Household and Annual Income per Person During One Week in Oakland and Los Angeles

17B. HALF-AND-HALF: Average Quantities Used and Expense per Household and per Person in Households With and Without Children Classified by Annual Family Income During One Week in Oakland and Los Angeles

18B. HALF-AND-HALF: Average Quantities Used and Expense per Household and per Person in Two-Adult Households Classified by Number of Children Under 16 Years and Annual Family Income During One Week in Oakland and Los Angeles

19B. ALL CREAM: Proportions of Households Using, Average Quantities Used, and Average Expense per Household and Per Person During One Week in Oakland and Los Angeles

20B. ALL CREAM: Average Quantities Used and Expense per Household and per Person in Households Classified by Number of Persons in the Household and Annual Income per Person During One Week in Oakland and Los Angeles

21B. ALL CREAM: Average Quantities Used and Expense per Household and per Person in Households With and Without Children Classified by Annual Family Income During One Week in Oakland and Los Angeles

22B. ALL CREAM: Average Quantities Used and Expense per Household and per Person in Two-Adult Households Classified by Number of Children Under 16 Years and Annual Family Income During One Week in Oakland and Los Angeles
23B. EVAPORATED MILK: Proportions of Households Using, Average Quantities Used, and Average Expense per Household and per Person During One Week in Oakland and Los Angeles
24B. EVAPORATED MILK: Average Quantities Used and Expense per Household and per Person in Households Classified by Number of Persons in the Household and Annual Income per Person During One Week in Oakland and Los Angeles
25B. EVAPORATED MILK: Average Quantities Used and Expense per Household and per Person in Households With and Without Children Classified by Annual Family Income During One Week in Oakland and Los Angeles
26B. EVAPORATED MILK: Average Quantities Used and Expense per Household and per Person in Two-Adult Households Classified by Number of Children Under 16 Years and Annual Family Income During One Week in Oakland and Los Angeles
27B. CONDENSED MILK, DRY MILK, AND INFANT FORMULA: Proportions of Households Using, Average Quantities Used, and Average Expense per Household and per Person During One Week in Oakland and Los Angeles
28B. CONDENSED MILK, DRY MILK, AND INFANT FORMULA: Average Quantities Used and Expense per Household and per Person in Households Classified by Number of Persons in the Household and Annual Income per Person during One Week in Oakland and Los Angeles
29B. CONDENSED MILK, DRY MILK, AND INFANT FORMULA: Average Quantities Used and Expense per Household and per Person in Households With and Without Children Classified by Annual Family Income During One Week in Oakland and Los Angeles
30B. CONDENSED MILK, DRY MILK, AND INFANT FORMULA: Average Quantities Used and Expense per Household and per Person in Two-Adult Households Classified by Number of Children Under 16 Years and Annual Family Income During One Week in Oakland and Los Angeles
31B. COTTAGE CHEESE: Proportions of Households Using, Average Quantities Used, and Average Expense per Household and per Person During One Week in Oakland and Los Angeles
32B. COTTAGE CHEESE: Average Quantities Used and Expense per Household and per Person in Households Classified by Number of Persons in the Household and Annual Income per Person During One Week in Oakland and Los Angeles
33B. COTTAGE CHEESE: Average Quantities Used and Expense per Household and per Person in Households With and Without Children Classified by Annual Family Income During One Week in Oakland and Los Angeles
34B. COTTAGE CHEESE: Average Quantities Used and Expense per Household and per Person in Two-Adult Households Classified by Number of Children Under 16 Years and Annual Family Income During One Week in Oakland and Los Angeles

35B. AMERICAN CHEDDAR CHEESE: Proportions of Households Using, Average Quantities Used, and Average Expense per Household and per Person During One Week in Oakland and Los Angeles

36B. AMERICAN CHEDDAR CHEESE: Average Quantities Used and Expense per Household and per Person in Households Classified by Number of Persons in the Household and Annual Income per Person During One Week in Oakland and Los Angeles

37B. AMERICAN CHEDDAR CHEESE: Average Quantities Used and Expense per Household and per Person in Households With and Without Children Classified by Annual Family Income During One Week in Oakland and Los Angeles

38B. AMERICAN CHEDDAR CHEESE: Average Quantities Used and Expense per Household and per Person in Two-Adult Households Classified by Number of Children Under 16 Years and Annual Family Income During One Week in Oakland and Los Angeles

39B. CHEESE OTHER THAN COTTAGE OR CHEDDAR CHEESE: Proportions of Households Using, Average Quantities Used, and Average Expense per Household and per Person During One Week in Oakland and Los Angeles

40B. CHEESE OTHER THAN COTTAGE OR CHEDDAR CHEESE: Average Quantities Used and Expense per Household and per Person in Households Classified by Number of Persons in the Household and Annual Income per Person During One Week in Oakland and Los Angeles

41B. CHEESE OTHER THAN COTTAGE OR CHEDDAR CHEESE: Average Quantities Used and Expense per Household and per Person in Households With and Without Children Classified by Annual Family Income During One Week in Oakland and Los Angeles

42B. CHEESE OTHER THAN COTTAGE OR CHEDDAR CHEESE: Average Quantities Used and Expense per Household and per Person in Two-Adult Households Classified by Number of Children Under 16 Years and Annual Family Income During One Week in Oakland and Los Angeles

43B. FROZEN DESSERTS: Proportions of Households Using, Average Quantities Used, and Average Expense per Household and per Person During One Week in Oakland and Los Angeles

44B. FROZEN DESSERTS: Average Quantities Used and Expense per Household and per Person in Households Classified by Number of Persons in the Household and Annual Income per Person During One Week in Oakland and Los Angeles

45B. FROZEN DESSERTS: Average Quantities Used and Expense per Household and per Person in Households With and Without Children Classified by Annual Family Income During One Week in Oakland and Los Angeles

46B. FROZEN DESSERTS: Average Quantities Used and Expense per Household and per Person in Two-Adult Households Classified by Number of Children Under 16 Years and Annual Family Income During One Week in Oakland and Los Angeles

47B. BUTTER: Proportions of Households Using, Average Quantities Used, and Average Expense per Household and per Person During One Week in Oakland and Los Angeles

48B. BUTTER: Average Quantities Used and Expense per Household and per Person in Households Classified by Number of Persons in the Household and Annual Income per Person During One Week in Oakland and Los Angeles

49B. BUTTER: Average Quantities Used and Expense per Household and per Person in Households With and Without Children Classified by Annual Family Income During One Week in Oakland and Los Angeles

50B. BUTTER: Average Quantities Used and Expense per Household and per Person in Two-Adult Households Classified by Number of Children Under 16 Years and Annual Family Income During One Week in Oakland and Los Angeles

51B. BUTTER AND NONDAIRY FATS: Proportions of Households Using, Average Quantities Used, and Average Expense per Household and per Person During One Week in Oakland and Los Angeles

52B. BUTTER AND NONDAIRY FATS: Uses of Butter, Oleomargarine, Vegetable Oils, Vegetable Shortening, and Lard During One Week by Households in Oakland and Los Angeles

53B. BUTTER AND OLEOMARGARINE: Proportions of Households Using Butter and Oleomargarine, Average Quantities Used and Average Expense per Household According to Food Expense During One Week in Oakland and Los Angeles

54B. USES OF BUTTER AND OLEOMARGARINE: Proportions of Households Using, Average Quantities Used by Households Using, and Proportions of Total Product Used in Specific Ways by Households Using Butter Only During One Week in Oakland and Los Angeles

55B. USES OF BUTTER AND OLEOMARGARINE: Proportions of Households Using, Average Quantities Used by Households Using, and Proportions of Total Products Used in Specific Ways by Households Using Both Butter and Oleomargarine During One Week in Oakland and Los Angeles

56B. TOTAL CONSUMPTION OF AND EXPENSE FOR DAIRY PRODUCTS: Distribution of the Same Households According to Quantities Used per Household and per Person and Food Expense Class During One Week in Summer and One Week in Winter in Sacramento

57B. ALL FLUID MILK: Proportions of Households Using, Average Quantities Used, and Average Expense per Household and per Person During One Week in Summer and One Week in Winter by the Same Households in Sacramento

58B. ALL FLUID MILK: Average Quantities Used and Expense per Household and per Person in Households With and Without Children Under 16 Years Classified by Annual Family Income During One Week in Summer and One Week in Winter by the Same Households in Sacramento

59B. ALL FLUID MILK: Average Quantities Used and Expense per Household and per Person in the Same Two-Adult Households Classified by Number of Children Under 16 Years and Annual Family Income During One Week in Summer and One Week in Winter in Sacramento

60B. ALL WHOLE MILK: Proportions of Households Using, Average Quantities Used, and Average Expense per Household and per Person During One Week in Summer and One Week in Winter by the Same Households in Sacramento

61B. ALL WHOLE MILK: Average Quantities Used and Expense per Household and per Person in Households With and Without Children Under 16 Years Classified by Annual Family Income During One Week in Summer and One Week in Winter by the Same Households in Sacramento

62B. ALL WHOLE MILK: Average Quantities Used and Expense per Household and per Person in the Same Two-Adult Households Classified by Number of Children Under 16 Years and Annual Family Income During One Week in Summer and One Week in Winter in Sacramento

63B. FLUID MILK OTHER THAN WHOLE MILK: Proportions of Households Using, Average Quantities Used, and Average Expense per Household and per Person During One Week in Summer and One Week in Winter by the Same Households in Sacramento

64B. USE OF FLUID MILK AS A BEVERAGE: Distribution of the Same Households Classified by Weekly Food Expense and Annual Family Income and by Proportions and Quantities Used as a Beverage During One Week in Summer and One Week in Winter in Sacramento

65B. USE OF FLUID MILK AS A BEVERAGE: Distribution of the Same Two-Adult Households Classified by Number of Children and by Quantities Used as a Beverage During One Week in Summer and One Week in Winter in Sacramento

66B. USE OF FLUID MILK AS A BEVERAGE: Distribution of Family Members Classified by Their Use of Fluid Milk as a Beverage During One Week in Summer and One Week in Winter by the Same Households in Sacramento

67B. USE OF FLUID MILK AS A BEVERAGE: Distribution of Family Members Classified by Age and Sex and Quantity of Fluid Milk Used as a Beverage During One Week in Summer and One Week in Winter by the Same Households in Sacramento

68B. HALF-AND-HALF: Proportions of Households Using, Average Quantities Used, and Average Expense per Household and per Person During One Week in Summer and One Week in Winter by the Same Households in Sacramento

69B. ALL CREAM: Proportions of Households Using, Average Quantities Used, and Average Expense per Household and per Person During One Week in Summer and One Week in Winter by the Same Households in Sacramento

70B. EVAPORATED MILK: Proportions of Households Using, Average Quantities Used, and Average Expense per Household and per Person During One Week in Summer and One Week in Winter by the Same Households in Sacramento

71B. EVAPORATED MILK: Average Quantities Used and Expense per Household and per Person in Households With and Without Children Under 16 Years Classified by Annual Family Income During One Week in Summer and One Week in Winter by the Same Households in Sacramento

72B. EVAPORATED MILK: Average Quantities Used and Expense per Household and per Person in the Same Two-Adult Households Classified by Number of Children Under 16 Years and Annual Family Income During One Week in Summer and One Week in Winter in Sacramento

73B. CONDENSED MILK, DRY MILK, AND INFANT FORMULA: Proportions of Households Using, Average Quantities Used, and Average Expense per Household and per Person During One Week in Summer and One Week in Winter by the Same Households in Sacramento

74B. COTTAGE CHEESE: Proportions of Households Using, Average Quantities Used, and Average Expense per Household and per Person During One Week in Summer and One Week in Winter by the Same Households in Sacramento

75B. COTTAGE CHEESE: Average Quantities Used and Expense per Household and per Person in Households With and Without Children Under 16 Years Classified by Annual Family Income During One Week in Summer and One Week in Winter by the Same Households in Sacramento

76B. COTTAGE CHEESE: Average Quantities Used and Expense per Household and per Person in the Same Two-Adult Households Classified by Number of Children Under 16 Years and Annual Family Income During One Week in Summer and One Week in Winter in Sacramento

77B. AMERICAN CHEDDAR CHEESE: Proportions of Households Using, Average Quantities Used, and Average Expense per Household and per Person During One Week in Summer and One Week in Winter by the Same Households in Sacramento

78B. AMERICAN CHEDDAR CHEESE: Average Quantities Used and Expense per Household and per Person in Households With and Without Children Under 16 Years Classified by Annual Family Income During One Week in Summer and One Week in Winter by the Same Households in Sacramento

79B. AMERICAN CHEDDAR CHEESE: Average Quantities Used and Expense per Household and per Person in the Same Two-Adult Families Classified by Number of Children Under 16 Years and Annual Family Income During One Week in Summer and One Week in Winter in Sacramento

80B. CHEESE OTHER THAN COTTAGE OR AMERICAN CHEDDAR CHEESE: Proportions of Households Using, Average Quantities Used, and Average Expense per Household and per Person During One Week in Summer and One Week in Winter by the Same Households in Sacramento

81B. FROZEN DESSERTS: Proportions of Households Using, Average Quantities Used, and Average Expense per Household and per Person During One Week in Summer and One Week in Winter by the Same Households in Sacramento

82B. FROZEN DESSERTS: Average Quantities Used and Expense per Household and per Person in Households With and Without Children Under 16 Years Classified by Annual Family Income During One Week in Summer and One Week in Winter by the Same Households in Sacramento

83B. FROZEN DESSERTS: Average Quantities Used and Expense per Household and per Person in the Same Two-Adult Households Classified by Number of Children Under 16 Years and Annual Family Income During One Week in Summer and One Week in Winter in Sacramento

84B. BUTTER: Proportions of Households Using, Average Quantities Used, and Average Expense per Household and per Person During One Week in Summer and One Week in Winter by the Same Households in Sacramento

85B. BUTTER: Average Quantities Used and Expense per Household and per Person in Households With and Without Children Under 16 Years Classified by Annual Family Income During One Week in Summer and One Week in Winter by the Same Households in Sacramento

86B. BUTTER: Average Quantities Used and Expense per Household and per Person in the Same Two-Adult Families Classified by Number of Children Under 16 Years and Annual Family Income During One Week in Summer and One Week in Winter in Sacramento

4*m*-4,'59(C0268)L.L.